Final Report

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Independent Evaluation of the California Tobacco Control Prevention & Education Program: Waves 1, 2, and 3 (1996-2000)

California Department of Health Services
Tobacco Control Section

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EXECUTIVE SUMMARY

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I. INTRODUCTION

The California Tobacco Control Program

In November 1988, California voters passed Proposition (Prop) 99, the Tobacco Tax and Health Promotion Act, which established the California Tobacco Control Prevention and Education Program. This referendum increased the state cigarette tax from 10 to 35 cents per pack, added a proportional tax increase on other tobacco products, and earmarked the new revenues for tobacco control, medical care, and research activities. It launched one of the largest public health interventions of its kind ever initiated, nationally or internationally.

Total funding for the Tobacco Control Program (TCP) fluctuated considerably since the inception of the program. From the first to the seventh year of the program, there was a 60 percent reduction in total funding (from $131.3 million in 1989-90 to $53.4 million in 1995-96). From 1995-96 to 1997-98, total funding more than doubled (from $53.4 million to $140.7 million), however, it declined again in 1998-99 (to $105.8 million) and in 1999-00 (to $88.2 million).

The baseline year for this Independent Evaluation of the California TCP assessed tobacco control activities during fiscal years 1994-95 and 1995-96, which represented the lowest points in funding levels since the inception of the program. The second wave of data collection for the Independent Evaluation assessed tobacco control activities during 1996-97 and 1997-98, when total funding had increased to levels close to the allocations in the first year of the program. The third wave of data collection assessed tobacco control activities during 1998-99 and 1999-00, when total funding had decreased to levels between the first year of the TCP and the baseline year of the Independent Evaluation.

The primary goals of the California TCP are: (1) to reduce tobacco use among adults and youth; and (2) to reduce exposure to environmental tobacco smoke (ETS). Since its inception, the program has been comprehensive, integrated, and composed of multiple interventions that address individual, social, and environmental factors that contribute to tobacco use. Since 1994, the TCP has emphasized changing the broader social environment in which tobacco use occurs. The focus has been on "denormalizing" or reducing the acceptability of tobacco use in California communities. The three areas of programmatic focus for denormalization include:

1. Countering pro-tobacco influences in the community;
2. Reducing exposure to environmental tobacco smoke (ETS); and,
3. Reducing youth access to tobacco through retail and social sources.

The primary TCP components include: 1) community programs, 2) the statewide mass media campaign, and, 3) the school-based Tobacco Use Prevention Education (TUPE) program.

1. Community programs are administered by Local Lead Agencies (LLAs) and community-based organizations that are awarded competitive grants. These agencies and

organizations implement a broad range of community- and environmental-level interventions, coordinate local tobacco control activities, and provide technical assistance on program planning. The competitive grants program also provides funds to established networks of agencies that serve each of the four largest ethnic groups in California (African Americans, Hispanics, Asian/Pacific Islanders, and American Indians), and it funds 11 regional community linkage projects that organize local governments and community-based organizations to work outside their geographic boundaries on tobacco control initiatives and a few statewide projects.

2. The statewide mass media campaign consists of paid outdoor advertising, print media, and paid advertisements on radio and television. The campaign is designed to frame and support the issues upon which local community programs act, keep tobacco at the forefront of the public's awareness, reduce the social acceptability of tobacco use in California, and publicize toll-free numbers for tobacco cessation and reporting illegal tobacco sales to youth. Additionally, it includes a statewide public relations effort.
3. The school-based TUPE program provides funding for local educational agencies to implement tobacco prevention, education, and cessation programs for youth. Components include entitlements for in-school tobacco prevention programs for students in grades four through eight, competitive grants for tobacco prevention and cessation for students in grades nine through twelve, competitive grants for innovative projects, and funding to county offices of education for technical assistance to school districts.

Overview of This Independent Evaluation

The overall purpose of the Independent Evaluation is to assess the effectiveness of tobacco control activities conducted through community programs, schools, and the paid advertising component of the statewide media campaign. The evaluation is designed to help the California Department of Health Services (CDHS) and the California Department of Education (CDE) allocate resources and adjust programmatic guidelines so as to accomplish the goals of the California TCP. The Independent Evaluation:

1. Provides an accounting of the use of TCP funds by describing Prop 99 funded community programs, media and public relations efforts, and school-based programs;
2. Assesses the combined (overall) and independent effects of community program efforts, the statewide media campaign, and school-based programs on intermediate and ultimate TCP outcomes; and,
3. Monitors changes in the tobacco industry's advertising and promotional activities in California.

The Independent Evaluation is a multi-method study with a repeated cross-section design (longitudinal at the county level), which includes three waves of data collection separated by 18-month intervals. The baseline wave was conducted from October 1996 to February 1997, and focused on tobacco control activities in 1995 and 1996. The second wave of data collection took place from March to July 1998, and focused on tobacco control activities during 1997 and 1998. The third wave of data collection was conducted from October 1999 to February 2000, and focused on tobacco control activities during 1998 and 1999.

This report provides a synopsis of the major findings of the third wave of the Independent Evaluation. It describes TCP's activities, relationships between exposure to program activities and outcomes, and changes in program outcomes from the first to third, and second to third waves of data collection.

See the magnifying glass icon (🔍) for key findings.

II. KEY FINDINGS

The Tobacco Marketing Environment in California

Tobacco marketing has gone through several changes in California in the past four years. With the advent of the Master Settlement Agreement (MSA) of 1998, the tobacco billboards have been removed, advertising in retail outlets has increased, and ads in magazines for young adults have increased. The number of tobacco-sponsored events in California has decreased, with consolidation of sponsorships to fewer contracts per corporation. Sponsorship of bars and clubs as well as promotions through direct mail continue to proliferate.

Tobacco-Sponsored Events

🔍 There were 297 tobacco-sponsored events identified in California in 1999. This number dropped to 90 tobacco-sponsored events in 2000. The change was due in large part to consolidation of sponsorship contracts by the tobacco corporations following the MSA, and RJ Reynolds' discontinuation of the Winston Weekly Racing Series to avoid youth involvement.

🔍 Some contracts between tobacco corporations and events organizers are shifting from brand to corporate sponsorship.

🔍 During 2000, approximately 2,218,353 people attended the tobacco-sponsored events held across the state. Approximately 584,308 people, or 26 percent of the audiences were under age 18.

🔍 In 2000, there were 67 tobacco-sponsored events observed by Tobacco Industry Monitoring Evaluation (TIME) staff and the staff and volunteers of 57 TCS-funded tobacco control organizations throughout California, in support of Project Sponsorship Mission: Avoid Reliance on Tobacco (SMART) Money. Project SMART Money is designed to focus a spotlight on tobacco sponsorship and help design efforts to rid events and organizations of tobacco funding.

🔍 Most of the active tobacco marketing recorded by observers took place at brand-sponsored rather than corporate-sponsored events, with the major form of promotion involving advertisements in the event programs (39 percent of events), banners (40 percent), signage (27 percent) or scoreboards (20 percent) at the events.

- The event observers for Project SMART Money have documented potential violations of the MSA and state law and have referred to the California Department of Justice for review and action.

Print Advertising

- Tobacco advertising prevalence is relatively high in national magazines with a large California readership, about 3.1 pro-tobacco ads per issue. In 1999, most of these ads (94 percent of the 569 pro-tobacco ads observed) were brand ads for specific tobacco products.

- The national magazines with the highest proportion of teen readers have the highest mean number of tobacco ads per issue, 6.5 ads per issue in 1999.

- The national magazines provide an opportunity for integrating campaigns found in bars and clubs as well as at tobacco-sponsored events and in direct mail. Common campaigns included Winston's "No Bull," and Camel's "Pleasure to Burn" ads, which seem aimed at an independent, young adult audience.

- Pro-tobacco advertising has increased in California newspapers, from an overall mean of 0.3 ads per issue in 1997 and 0.3 in 1998 (no change) to 0.7 in 1999. This increase is largely due to an increase in pro-tobacco ads in general audience (increasing from 0.2 to 0.4 ads per issue between 1998 and 1999) and weekly entertainment newspapers (increasing from 5.2 pro-tobacco ads per issue in 1998 to 5.7 ads per issue in 1999).

Bar and Club Promotions

- Despite the emergence of restrictions on smoking in bars and clubs in California, advertisements for tobacco-sponsored bar and club nights in weekly entertainment newspapers proliferated. While the mean number of tobacco brand ads per issue has remained fairly stable since 1996, the mean number of ads per issue devoted to promoting tobacco-sponsored bar and club nights increased steadily between 1996 and 1999, and then declined in the first half of 2000.

- In 1999, there were 520 bars listed in these types of weekly ads in the major urban centers of San Diego, Los Angeles, Orange County, San Jose, San Francisco Bay Area, and Sacramento. In 2000, there were 474 separate bars listed in the ads. They are also beginning to emerge in Modesto, Fresno, San Bernardino, and scattered locations in more rural areas.

- In our review of single issues of weekly entertainment newspapers from eight comparable states in the United States., it is clear that the tobacco-sponsored bar and club phenomenon is flourishing in major urban centers throughout the country. Tobacco advertising in California is on par with other states.

Retail Outlets

- Overall, cigarette advertising in retail outlets increased significantly from an average of 17.1 materials in 1999 to an average of 19.0 materials in 2000 ($p < .01$). The total amount of cigarette advertising, including signs, functional items, and Plexiglas enclosed displays, increased significantly in supermarkets, small markets, convenience stores with gas, and liquor stores. The increase is largely attributable to a 33 percent increase in signs. From 1999 to 2000, signage increased from an average of 11 per store to an average of 14.6 per store ($p < .01$).

- With the exception of supermarkets and pharmacies, most store types showed significant decreases in cigarette displays, from an average of 3.3 in 1999 to an average of 1.8 displays in 2000 ($p < .01$).

- There is good news with regard to compliance with one provision of MSA. In 1999, 89 percent of stores were in compliance with MSA regulating large exterior signs (over 14 sq. feet). By 2000, the number of compliant stores had increased significantly to over 95 percent ($p<.01$).

- Advertising at or below three feet did not change over the 11 months; in both 1999 and 2000, nearly half of all stores sampled featured advertising at or below three feet. The only exception to this was convenience stores, where advertising at or below three feet decreased significantly from 43 percent of all stores sampled in 1999 to 27 percent in 2000.

- Compliance with provisions of the Stop Tobacco Access to Kids Enforcement Act (STAKE Act) continues to be low. In 1999, 58 percent of the stores displayed STAKE Act signs; in 2000, only 61 percent of the stores displayed them.

- In 1999, 59 percent of stores reported that they receive incentives from tobacco companies; in 2000 this number was relatively unchanged with 55 percent reporting incentives.

Promotional Brochures in Stores

- The most common tobacco promotional brochures found in stores were sweepstakes entries from Basic, Marlboro, and Winston. Marlboro is the dominant type of promotional flyer found in convenience stores.

- Of the 83 brand materials analyzed, none contained cartoon characters.

- Virtually all the materials stated that customers must be 21 years of age or older in order to exchange tobacco coupons for brand merchandise or to enter a sweepstakes. Proof of identification was required 99 percent of the time; however, this proof usually only required giving a birth date and a signature.

Direct Mail

- Marlboro is the dominant brand among promotional materials sent to smokers directly through the mail, including the "Unlimited" magazine, Ranch Party sweepstakes, and Marlboro special offers.

- The most common title among the direct mail materials was Shoppers Savings (14 percent of direct mail materials). In partnership with retail stores such as Circle K and 7 Eleven and grocery stores like Albertson's and Von's Pavillion, these materials offered coupons or special savings for a variety of brands from a single manufacturer.

- Most direct mail materials (82 percent) included a mechanism for consumers to actively increase their communication with tobacco companies, such as redeeming a coupon, entering a sweepstakes contest, or providing opinions in a survey.

- Most (85 percent) of the direct mail materials specified an age restriction; however, only half of these materials also made requests for age verification.

- Magazines (published by tobacco companies for smokers) are a new component of many direct mail campaigns. All major tobacco companies are currently producing quarterly publications that are geared towards specific audiences, including "CML" for RJ Reynolds, "Real Edge" and "Flair" for Brown and Williamson, "Unlimited" for Philip Morris, and "Heartland" for U.S. Smokeless Tobacco Company (U.S.S.T.). All contain lifestyle articles and tobacco advertising.

Local TCPs

Countering Pro-Tobacco Influences (CPTI)

- Over the entire period of the Independent Evaluation, local TCP efforts appear to have contributed to the successful passage of CPTI restrictions in both the private and public sector.

    - Local TCPs working in Project SMART Money influenced over 80 organizations (e.g., fair boards, chambers of commerce, and private organizations) to adopt voluntary policies to restrict tobacco sponsorship.
    - CPTI policy passage was four times more likely in counties where there was local program activity.
    - New CPTI policies were passed in 32 percent of counties where LLAs reported policy initiation activity compared to 10 percent of counties where there was no reported policy initiation activity.
    - During the early years of the Independent Evaluation, there were no policies passed to restrict tobacco advertising (e.g., related to zoning location and retail outlets) in any of California's city and county jurisdictions. However, between January 1997 and December 1999, 81 separate CPTI provisions were passed to restrict tobacco advertising in 58 jurisdictions.

- Between 1998 and 2000, higher levels of local TCP effort to restrict tobacco sponsorships at local events within counties was associated with:

    - An increase in the percentage of adults who supported a ban on tobacco sponsorships (correlation = .48; $p < .05$)
    - A decrease in the percentage of adults who saw tobacco advertising "sometimes" or "a lot" at sporting events, fairs, or community events (correlation = -.32, n.s.).

- Significant relationships between local TCP efforts and changes, between 1998 and 2000, in attitudes about the tobacco industry and ownership of tobacco gear were fewer for youth than adults, and sometimes in the wrong direction. However, between 1996 and 2000, there were significant increases in the percentage of youth who believed the tobacco industry employs harmful marketing tactics (absolute percent change ranged from 4 percent to 9 percent), and significant decreases in the percentage of youth who saw, owned, or wanted tobacco promotional items (absolute percent change ranged from 4 percent to 7 percent).

- In 2000, most adults, youth, and key opinion leaders did not think that the amount of tobacco advertising and marketing in their communities was a serious problem (ranged from about one-third to one-half). However, the public and key community opinion leaders continued to support restrictions on tobacco advertising and marketing.

    - Approximately one-half to two-thirds supported bans on tobacco advertisements in stores, reductions on the amount of smoking depicted in TV programs and films, and restrictions on tobacco industry sponsorship of community events.
    - Opinion leaders voiced the highest support for policies to restrict advertising and marketing in venues aimed at young people (e.g., 79 percent supported a ban on tobacco advertising in entertainment newspapers and magazines that target youth).

- The majority of 8th- and 10th-grade youth believe that tobacco advertising and marketing influences them. Between 1996 and 2000, there was a significant increase in the percentage of 8th- and 10^{th}-graders who believed that:

    - Cigarette advertisements make young people want to start smoking (p's $< .01$)
    - Advertising should not be allowed where youth will see it (e.g., at sports or community events, on billboards, and in magazines read by youth; p's $< .05$).

Reducing Environmental Tobacco Smoke (ETS)

- Over the entire period of the Independent Evaluation, local TCP efforts appear to have contributed to the successful passage of ETS policies stricter than the state's clean indoor air law.

    - ETS policy passage was nearly two and one-half times more likely in counties where there was local program activity.
    - New ETS policies were passed in 35 percent of counties where LLAs reported policy initiation activity compared to 17 percent of counties where there was no reported policy initiation activity.
    - Because California's clean indoor air law is fairly comprehensive, passage of indoor ETS policies stricter than the state policy decreased between 1995 and 1999, while passage of outdoor and other ETS policies increased.

- The public supports continued efforts to extend ETS protections to outdoor public places where children and nonsmokers are exposed to tobacco smoke. In 2000, the majority of Californians believed that smoking was unacceptable:

    - In bus shelters (76 percent)
    - Close to building entrances (72 percent)
    - In public places such as the zoo (65 percent)
    - At outdoor restaurants (62 percent)
    - At outdoor community events (57 percent)

- Local TCP efforts to encourage enforcement of ETS laws was associated with increased enforcement between 1998 and 2000. For example:

    - More TCP effort was moderately associated with increases in the number of citations that ETS enforcement agencies issued to bars and other workplaces between 1998 and 2000 (correlations ranged from .37 to .49, p's from n.s. to <.10).
    - Higher levels of ETS enforcement were significantly related to decreases in adult exposure to workplace ETS between 1998 and 2000 (correlation = -.67, $p<.01$), underscoring the importance of keeping a focus on enforcement as the critical link between law and compliance.

- Between 1998 and 2000, local TCP efforts were related to decreases in adults' ETS exposure at work, but not to decreases in ETS exposure at home.

- Higher levels of local TCP ETS effort were significantly associated with a decrease in the percent of workers exposed to ETS one or more days per week at work (correlation = -.49 for all workers, $p<.04$ and -.43 for nonsmokers, $p<.08$). The previous Independent Evaluation report that examined changes in workplace exposure between 1996 and 1998 also found a significant association.
- The amount of ETS effort on the part of local TCPs was not significantly associated with changes in the percentage of nonsmoking adults who reported exposure to ETS in their homes. However, fewer nonsmoking adults reported exposure to ETS in their homes in 2000 (14 percent) than in 1996 (18 percent, $p<.01$).

Both 8th- and 10th-grade youth reported significantly less exposure to ETS while in the same room with someone who was smoking cigarettes and in cars, in 2000 compared to 1996 (absolute percent change ranged from 8 percent to 11 percent). Changes between 1998 and 2000, were not significantly related to local TCP effort or were in the wrong direction.

Findings suggested that enforcement of the smoke-free bar law gained momentum between 1998 and 2000, and there was more enforcement in bars than in restaurants and workplaces. For example:

- More than twice as many citations were issued to bars in the six months prior to the 2000 survey (mean = 14.4) than in 1998 (mean = 5.7).
- Nearly twice as many agencies issued citations for violations of the smoke-free bar law than for violations of the restaurant and workplace law in 2000 ($p<.01$).

The findings are important since issuing a citation is one of the stronger acts of enforcement.

Overall, support for the smoke-free bar law is large and has grown over time.

- More adults (68 percent) were against overturning the smoke-free bar law in 2000 than in 1998 ($p<.05$). Key opinion leaders remained overwhelming against overturning the law in 2000 (81 percent).
- Most adults (81 percent) stated a personal preference for smoke-free bars in 2000, a significant increase from the 75 percent in 1996 ($p<.01$).

Compliance with the smoke-free bar law may be increasing. Bar patrons in rural areas reported seeing fewer violations of the law in 2000 (51 percent) than in 1998 (58 percent, $p<.07$).

Noncompliant bars that allow smoking could be losing as many as 13 percent of all bar patrons (smokers and nonsmokers combined) who said that in the six months prior to the 2000 survey they had left a bar when there was smoking.

Reducing Youth Access (YA) to Tobacco

- Over the entire period of the Independent Evaluation, local TCP efforts appear to have contributed to the passage of YA restrictions.

    - Policy passage was nearly four times more likely in counties where there was local program activity.
    - New YA policies were passed in 48 percent of counties where LLAs reported policy initiation activity compared to 20 percent of counties where there was no reported policy initiation activity.
    - Between July 1995 and December 1999, 108 separate provisions were passed in 53 jurisdictions that were stricter than state or federal YA laws.

- Between 1998 and 2000, higher levels of local TCPs collaboration with YA law enforcement agencies were associated with an:

    - Increase in the number of citations agencies issued to merchants (correlation = .67, $p < .01$).
    - Increase in the number of citations agencies issued to minors (correlation = .59, $p < .05$).

- Between 1996 and 2000, there was a significant decrease in the percentage of 8th-graders (67 percent to 62 percent) ($p < .05$) and 10th-graders (89 percent to 82 percent) ($p < .01$) who thought cigarettes were easy to obtain. Local TCP efforts to reduce the availability of cigarettes to youth were not found to be associated with these changes.

- In 2000, most underage youth (60 percent) were unsuccessful when they attempted to buy cigarettes in the 30 days prior to the survey. The estimate has remained stable since 1996.

- Successful purchases of tobacco by minors (buy rates) were lower for urban youth than for rural youth in 2000 ($p<.10$). Reports from enforcement agencies that had conducted stings indicated that between 1996 and 2000 there was a *decrease* in buy rates for *urban* youth (from 28 percent to 19 percent) but an *increase* for *rural* youth (from 20 percent to 33 percent).

- Friends and family members continue to be the primary source of cigarettes for youth.

    - Most 8th-graders (67 percent) and 10th-graders (73 percent) reported that their last cigarette came from a social source in 2000. These percentages have not decreased since 1996.
    - The percentage of adults who have been asked by underage youth to buy cigarettes has decreased, however, from 9 percent in 1998 to 7 percent of adults in 2000 ($p < .05$).

The 2000 survey found that the Internet was not a significant source of cigarettes for minors.

- Only 1.2 percent of 10th-graders and 0.5 percent of 8th-graders who had purchased cigarettes, bought them on the Internet.
- Furthermore, 1.1 percent of all 10th-graders and 3 percent of 10th-grade smokers reported purchasing cigarettes on the Internet in the last year.

The Statewide Media Campaign

The statewide media program has been a high-profile component of the California TCP since 1990. During 1999, the campaign continued to have wide recognition among adults and youth in California.

Prop 99 funds set aside for developing and distributing of the media campaign have fluctuated over the last four years, but exposure has remained high:

- In 1999, the California media campaign circulated fewer new ads and spent less money disseminating them compared to 1998.
- Overall exposure to the campaign was very high, with over 90 percent of respondents recalling at least one of the media campaign ads in 2000.
- Among youth, this level of exposure was slightly lower than in 1998.
- The highest recall was among 8th-grade youth and opinion leaders, with 95 percent exposed to at least one ad.

The most frequent types of messages (42 percent of the ads that ran in 1998-99) were about prevention or cessation. Most of these messages raised awareness of the risks of smoking and/or suggested ways to quit. The second most frequent type of message were those designed to raise awareness and promote critical thinking about tobacco industry influence (32 percent of the ads).

Among the individual ads assessed in the youth and adult surveys:

- The ad most widely seen and discussed by youth was Voicebox, also known as Debi, seen by 91 percent of 8th-grade youth, 90 percent of 10th-grade youth and 89 percent of 12th-grade youth.
- As a result of viewing Voicebox, almost half the youth thought about not smoking and almost one-third thought about asking others not to smoke.
- Recall of almost all ads was lower among adults compared to youth, though adults were slightly more likely to discuss ads than were youth.
- The most widely discussed ad among adults was of a cowboy smoking a limp cigarette that signified impotence.

- Almost half the adult smokers (46 percent) had thought about quitting as a result of seeing the television ads, and almost one-third (31 percent) had thought about quitting as a result of seeing the billboard ads. Among non-smokers, over half (54 percent) had thought about asking others not to smoke as a result of the television ads, while 33 percent did so after the billboard ads.

- Half the youth (50 percent of 8th-graders, 48 percent of 10th-graders, 49 percent of 12th-graders) and 41 percent of adults recalled seeing an ad that has been out of circulation for at least three years, suggesting the potential for the California anti-tobacco media campaign to have long-term impacts.

- During 2000, exposure to the media campaign was associated with the following outcomes:

    - More negative attitudes toward the tobacco industry.
    - Among youth, greater support for policies that would restrict tobacco marketing.
    - Among youth and adults, greater likelihood of belief that ETS causes cancer.
    - Among adults, greater likelihood of asking others not to smoke.
    - Among adults, better understanding of the reason for the restrictions on smoking in bars, preference for smoke-free bars, and belief that the law on smoking in bars should not be overturned.
    - Among youth, greater likelihood of belief that cigarettes are just as addictive as heroin; that smoking has negative consequences and does not have positive consequences; that cigars are as harmful as cigarettes; that fewer peers smoke; and, that they might refuse tobacco offers from friends.
    - Slightly lower rates of tobacco use among youth and adults, including lower use of chewing tobacco and cigars in the past 30 days for youth and lower 30-day smoking among 8th-grade youth.

- Opinion leaders who saw or heard more of the statewide media campaign were more likely to support stronger policies countering pro-tobacco influence and participate in TCP priority area community activities.

School-based Tobacco Use Prevention Education (TUPE) Program

- From school years 1995-96 to 1998-99, there was an increase in the percentage of 5th- and 8th-grade teachers who taught at least one tobacco prevention lesson (54 percent to 76 percent for 5th-grade teachers, $p<.01$; 61 percent to 76 percent for 8th-grade science and health teachers, ns). The prevalence of school-wide prevention activities, such as Great American Smoke-out events, tobacco-specific contests and assemblies, peer education programs, and anti-tobacco clubs did not change significantly for either elementary or middle/junior high schools, with the exception of a decrease in Great American Smoke-out events in middle/junior high schools (62 percent to 40 percent of schools, $p<.05$).

- The average amount of time spent on tobacco prevention lessons during 1998-99 was 6.5 hours in 5th grade and 7.6 hours in middle and high school grades. Lessons about the

physiologic consequences of tobacco use were more common (91 percent) than discussion of psychosocial factors related to tobacco use, such as peer norms (55 percent). The majority of school districts were not using tobacco prevention curricula that have been identified as "exemplary" or "promising" by experts.

- Comprehensive high schools that had TUPE competitive grant funds in school year 1998-99 ("grantees") were significantly more likely than "non-grantee" high schools to have a tobacco cessation program (81 percent vs. 41 percent, $p < .01$), peer tobacco education program (50 percent vs. 11 percent, $p < .01$), and anti-tobacco club (22 percent vs. 0 percent, $p < .01$).

- As of February 1999, 97 percent of school districts in California had adopted a policy that prohibits the use of tobacco by all students, school staff, parents, and visitors in district-owned or leased buildings, on district grounds, and in district vehicles.

  - From 1996 to 2000, there was a significant decrease in 10th-graders' perceptions of violations of tobacco-free policies in their high schools.
  - In 2000, as in previous waves of the Independent Evaluation, schools reported that the most prevalent consequences for violations of the policy were suspending or expelling student violators (76 percent) and calling students' parents (78 percent). Almost one-third of high schools reported that they required violators to attend a "Saturday school" with tobacco prevention instruction.

- In 2000, only 23 percent of teachers reported they had participated in some type of in-service tobacco prevention training during the previous five years. The majority of this training addressed general information about tobacco rather than how to implement specific prevention programs.

- From 1996 to 2000, the prevalence of 30-day cigarette smoking decreased significantly among 5th-graders (5.0 percent to 1.9 percent, $p<.01$), 8th-graders (16.9 percent to 11.7 percent, $p < .01$), and 10th-graders (27.8 percent to 19.5 percent, $p<.01$).

- In 2000, the prevalence of 30-day smoking among 12th-graders was 24.8 percent, which is lower than national smoking rates for 12th-graders reported by *Monitoring the Future* (published by the Nation Institute on Drug Abuse) (31.4 percent in 2000).

- More than one-fourth of 12th-graders (26.3 percent) and 13.9 percent of 10th-graders reported they had tried a bidi in their lifetime.

- From 1996 to 2000, the percentage of 10th-grade smokers who had tried to quit smoking during the previous year increased significantly (46 percent to 68 percent, $p<.01$).

- From 1996 to 2000, there were significant improvements in 5th-, 8th-, and 10th-grade students beliefs about consequences of tobacco use, attitudes toward the tobacco industry, beliefs about social norms, refusal skills, and tobacco-related knowledge.

- Analyses of program effectiveness indicated that few of the positive changes in program outcomes were associated with TUPE program exposure.

    - For 5th-graders, greater program exposure was associated with changes in only one outcome indicator, beliefs about the negative consequences of tobacco use ($p < .05$).
    - For 8th-graders, program exposure was not associated with any of the changes in outcome indicators.
    - Cross-sectional and longitudinal analyses showed there were no statistically significant differences in outcomes between high schools that were TUPE grantees and those that were non-grantees.

Overall Impact of the California TCP

- Most Californians were exposed to tobacco control messages through at least two different components (media, community, and/or school).

    - 76 percent of 8th-graders, 85 percent of 10th-graders, and 79 percent of adults were exposed to TCPs through two or more components.
    - Only 5 percent of 8th-graders, 4 percent of 10th-graders, and 1 percent of adults did not report exposure to any programs.

- Youth were most likely to be exposed to tobacco control messages through multiple components if they were white or nonsmokers.

- Adults were most likely to be exposed to tobacco control messages through multiple components if they:

    - Were white or African American
    - Between 18 and 35 years of age
    - Had at least some college

    To examine relationships between exposure to the TCP and tobacco control outcomes, we created a TCP Exposure measure that represents the average number of components recalled by respondents in each of the 18 evaluation counties.

- In counties with higher TCP Exposure, we observed the following:

    - Lower perceived access to cigarettes among 10th-graders in 2000 (effect size=.55, $p<.05$).
    - A decrease in adult cigarette smoking prevalence from 1996 to 2000 (effect size=.48, $p<.05$).
    - An increase from 1996 to 2000 in the proportion of adults who had complete home smoking bans (effect size=.47, $p<.05$).

CHAPTER 1

INTRODUCTION

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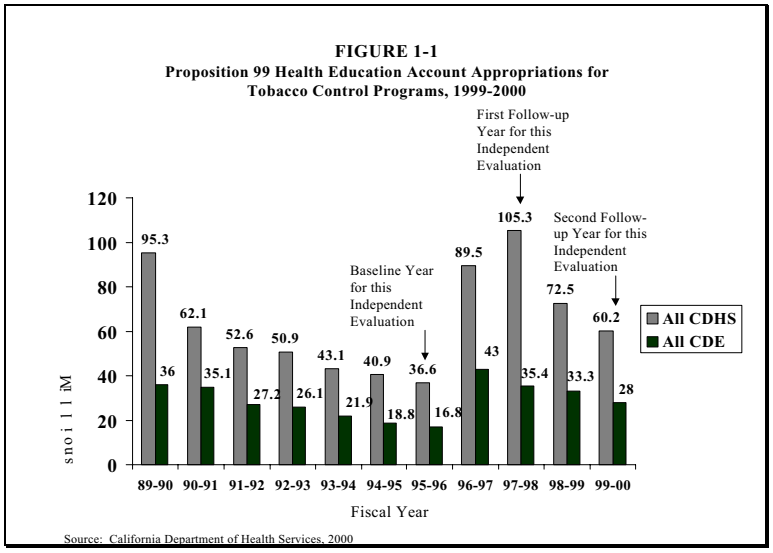
INTRODUCTION

Background

In November 1988, California voters passed Proposition (Prop) 99, the Tobacco Tax and Health Protection Act, which established the California Tobacco Control Program (TCP). This referendum increased the state cigarette excise tax from 10 to 35 cents per pack, added a proportional tax increase on other tobacco products, and earmarked the new revenues for tobacco control, medical care, and research activities. The State launched one of the largest public health interventions of its kind ever initiated, nationally or internationally.

Funds for the California TCP are appropriated from the Health Education Account of the Tobacco Products Surtax Fund. The Health Education Account is one of six accounts to which tobacco tax revenues are allocated annually. The Tobacco Tax and Health Protection Act specified that the Health Education Account was to be allocated a 20 percent share of Prop 99 tobacco tax revenues. The remaining funds were allocated to hospital services (35 percent), physician services (10 percent), research (5 percent), public resources (5 percent), and an unallocated fund left to the discretion of the Legislature (25 percent).

TCP is administered by the California Department of Health Services, Tobacco Control Section (CDHS/TCS) and the California Department of Education (CDE). Figure 1-1 shows the amount of funding allocated to CDHS and CDE for TCP from fiscal years 1989-90 to 1999-00. Total funding for TCP fluctuated considerably over the 11-year program period. From the first to the seventh year of the program, there was a 60 percent reduction in total funding (from $131.3 million in 1989-90 to $53.4 million in 1995-96). From 1995-96 to 1997-98, total funding more than doubled (from $53.4 million to $140.7 million), however it declined again in 1998-99 (to $105.8 million) and in 1999-00 (to $88.2 million).



The baseline year for this Independent Evaluation assessed tobacco control activities during fiscal years 1994-95 and 1995-96, which represented the lowest points in TCP funding levels since the inception of the program. The second wave of data collection for the Independent Evaluation assessed tobacco control activities during 1996-97 and 1997-98, when total funding had increased to levels close to the allocations in the first year of the program. The final wave of data collection, described in this report, assessed tobacco control activities during 1998-99 and 1999-00, when total funding had decreased again, but not to levels as low as those during the baseline evaluation period.

California Tobacco Control Program (TCP) Model

The primary goals of the California TCP are: (1) to reduce tobacco use among adults and youth; and (2) to reduce exposure to environmental tobacco smoke (ETS). The program initially drew upon the National Cancer Institute's *Standards for Comprehensive Smoking Prevention and Control* (United States Department of Health and Human Services [USDHHS], 1990), which suggest that the most effective tobacco control program is comprehensive, integrated, and comprises multiple interventions that address individual, social, and environmental factors that contribute to tobacco use.

Since 1994, the TCP has emphasized changing the broader social environment in which tobacco use occurs (CDHS/TCS, 1998). The focus has been a "denormalizing" strategy aimed at reducing the social acceptability (or "normality") of tobacco use and exposure to tobacco smoke (ETS) in California communities. The three areas of programmatic focus for denormalization include:

1. Counter pro-tobacco influences in the community;
2. Reduce exposure to ETS; and
3. Reduce youth access to tobacco through retail and social sources.

In 1996, CDHS/TCS identified countering pro-tobacco influences as having the highest priority for the 1996-97 and 1997-98 fiscal years. This area remained a high priority during subsequent fiscal years. In addition to the three priority areas, the program also supports certain cessation services for cigarette smokers and users of other forms of tobacco.

Interventions include a broad range of programmatic activities designed to support the three priority areas. Examples of interventions that CDHS/TCS encouraged local communities and grantees to implement during the Independent Evaluation period (1996-00) include the following:

Counter Pro-Tobacco Influences

- Mobilize community support for, and enact policies that decrease exposure to tobacco advertising, promotions, and sponsorships
- Create support to implement and enforce existing laws that will decrease youth exposure to tobacco advertising and promotions, through community education, media, and providing training to enforcement agencies
- Create alternative sponsorship opportunities
- Conduct educational campaigns that target youth and expose the manipulation of youth by the tobacco industry
- Create campaigns to educate the public to counter tobacco industry messages (e.g., that tobacco products are not addictive)

Reduce Exposure to ETS

- Expand work site policies to increase smoking restrictions indoors and outdoors
- Create support for implementing and enforcing state and local clean indoor air laws through community education, advertising, public relations, and training of enforcement agencies
- Increase the number of families that voluntarily establish smoke-free homes and vehicles

Reduce Youth Access to Tobacco

- Create support among local governments for policies to eliminate illegal tobacco sales, such as self-service display bans and tobacco retail licensing and conditional use permits
- Create support for enforcing existing state, local, and tribal laws to reduce youth access
- Provide merchant education, public relations, and media campaigns to eliminate illegal tobacco sales to minors
- Create educational and media campaigns that address social sources of tobacco

Facilitate Cessation

- Provide cessation services for smokers and chewers through a statewide multilingual counseling program
- Provide cessation classes through local health departments
- Provide technical assistance to Medi-Cal managed care organizations and health maintenance organizations to make changes at the system level that enable provision of cessation services to enrollees

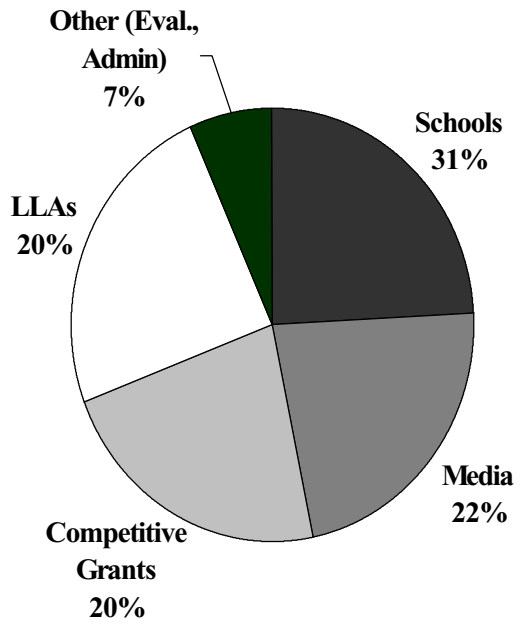
California TCP Components

Primary components of the California TCP include:

- Local Programs (Local Lead Agencies [LLAs] and Competitive Grantees);
- Statewide Mass Media Campaign; and,
- School-based Tobacco Use Prevention Education (TUPE) Program.

Figure 1-2 shows the proportion of the budget in fiscal year 1998-99 that was appropriated for each of these program components.

FIGURE 1-2
Budget Appropriations for Tobacco Control Program Components, FY 1998-99



Source: California Department of Health Services, 2000

Local Programs are administered by LLAs and community-based organizations that are awarded competitive grants. The 58 county health departments and three city health departments in the state serve as LLAs for tobacco control. These agencies implement a broad range of community- and environmental-level interventions, coordinate local tobacco control activities, and provide technical assistance on program planning. The competitive grants program provides funding to community-based organizations for prevention projects that build on existing community resources. The competitive grants program also provides funds to established networks of agencies that serve each of the four largest ethnic groups in California (African Americans, Hispanics, Asian/Pacific Islanders, and American Indians), and it funds 11 regional community linkage projects that organize local governments and community-based organizations to work outside their geographic boundaries on tobacco control initiatives.

The ***Statewide Mass Media Campaign*** consists of outdoor advertising, print media, and paid advertisements on radio and television. The campaign is designed to:

- Frame and support the issues upon which local community programs act;
- Keep tobacco at the forefront of the public's awareness;
- Communicate the seriousness of tobacco use to the public;
- Reduce the social acceptability of tobacco use in California; and
- Publicize toll-free numbers for tobacco cessation and reporting illegal sales to youth.

There is also a public relations component of the campaign that assists local programs in their media advocacy efforts, and supports linkages between local program activities and the statewide media campaign (CDHS/TCS, 1998).

The ***School-based TUPE*** provides funding for local educational agencies to implement tobacco prevention, education, and cessation programs for youth. Components include entitlements for in-school tobacco prevention programs for students in grades four through eight, competitive grants for tobacco prevention and cessation for students in grades nine through twelve, competitive grants for innovative projects, and funding to county offices of education for technical assistance to school districts.

Since the 1994-95 school year, the TUPE program has been based on the Guidelines for *School Health Programs to Prevent Tobacco Use and Addiction*, developed by the Centers for Disease Control and Prevention (1994). The guidelines include the following:

1. Develop and enforce a school policy on tobacco use;
2. Provide instruction about the negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills;
3. Provide tobacco use prevention instruction in kindergarten through 12th grade. The instruction should be especially intensive in junior high/middle school and should be reinforced in high school;
4. Provide program-specific training for teachers;
5. Involve parents or families in support of school-based tobacco use prevention programs;
6. Support cessation efforts among students and all staff who use tobacco; and,
7. Assess the tobacco use prevention program at regular intervals.

Overview of This Independent Evaluation

The Independent Evaluation is conducted by a consortium of organizations, including the Gallup Organization, the Stanford University Center for Research in Disease Prevention, and the University of Southern California Institute for Health Promotion and Disease Prevention. The Independent Evaluation is separate from ongoing surveillance activities that monitor tobacco-related behaviors and attitudes among adults and youth and per capita cigarette consumption in California.

The overall purpose of the evaluation is to assess the effectiveness of tobacco control activities conducted through community programs, schools, and the statewide media campaign. The evaluation is designed to help CDHS and CDE allocate resources and adjust programmatic guidelines so as to accomplish the goals of the California TCP. The Independent Evaluation:

- Provides an accounting of the use of TCP funds by describing Prop 99 funded community programs, media and public relations efforts, and school-based programs;
- Assesses the combined (overall) and independent effects of community program efforts, the statewide media campaign, and school-based programs on intermediate and ultimate TCP outcomes; and,
- Monitors changes in the tobacco industry's advertising and promotional activities in California.

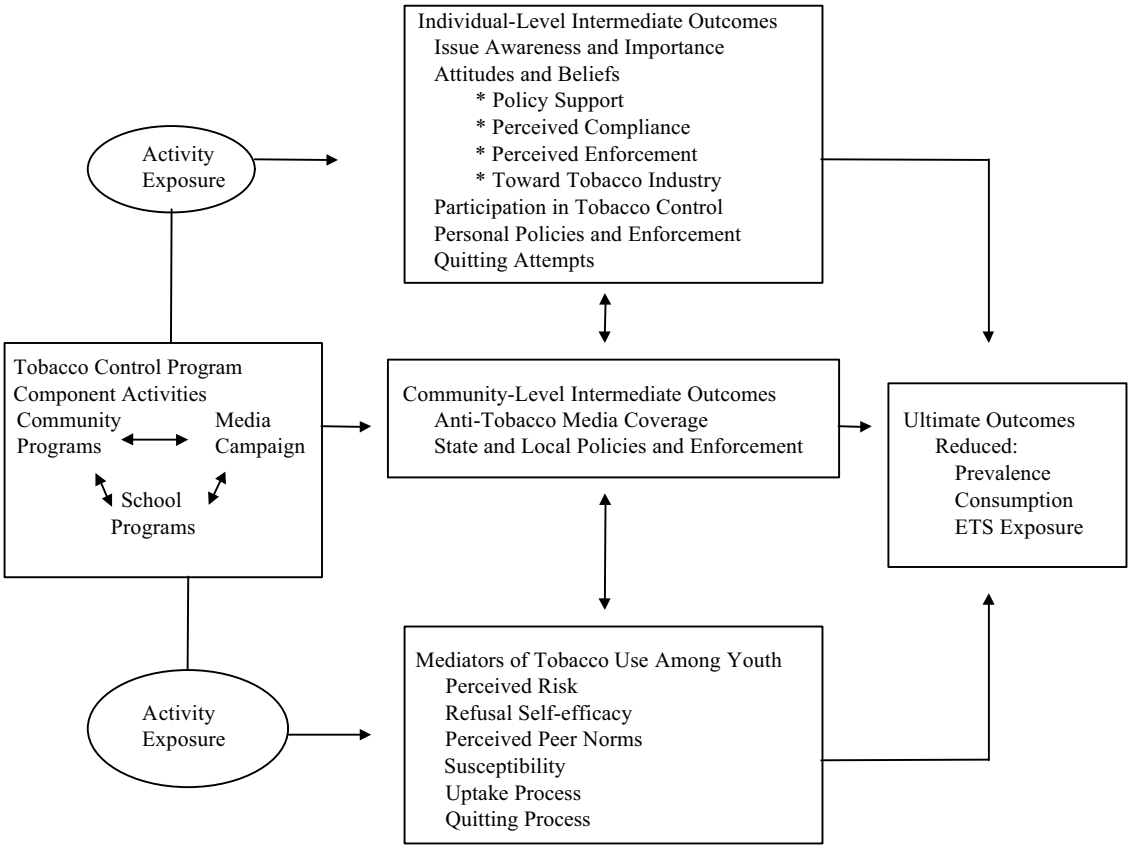
The evaluation study utilizes a repeated cross section design (which is longitudinal at the county level), and it includes three waves of data collection that are separated by 18-month intervals (see Table 1-1). The subject of this report is the third wave of data collection, which took place from October 1999 to February 2000, and focused on tobacco control activities during 1998 and 1999.

Table 1-1
Independent Evaluation Design

	Wave 1 (Baseline)	**Wave 2**	**Wave 3**
When conducted	October 1996 – February 1997	March 1998 – July 1998	October 1999 – February 2000
Program period addressed	1995 – 1996	1997 – 1998	1998 – 1999

The conceptual framework for the Independent Evaluation is illustrated in Figure 1-3. This figure shows a simplified view of the presumed relationships among TCP activities, intermediate outcomes, and ultimate outcomes. TCP activities are conducted through local programs, the statewide media campaign, and schools. Program activities are directed towards social norm changes (i.e., intermediate outcomes) at the individual level and community level. School-based programs are directed toward changing tobacco use mediators such as perceived risk, refusal skills, and susceptibility. It is presumed that, over time, changes in intermediate outcomes will affect ultimate outcomes (i.e., reduced tobacco use prevalence, consumption, and ETS exposure).

FIGURE 1-3
Conceptual Framework for the Independent Evaluation



The evaluation focuses on 18 counties ("focal" counties) that were selected to represent California's 58 counties. The focal counties were selected from four strata, which are referred to in this report as Media Markets, High-Density, Medium-Density, and Low-Density counties. Multiple data collection methods were used to examine program activities and outcomes in these focal counties. Table 1-2 summarizes the methods. (See Appendix B for a description of the sampling scheme, data collection methods, and analytic approach.)

Table 1-2
Independent Evaluation Data Collection Methods, 1996-2000

Data Source	Component Addressed	Wave 1 (1996) Number of Respondents	Wave 1 (1996) Response Rate	Wave 2 (1998) Number of Respondents	Wave 2 (1998) Response Rate	Wave 3 (2000) Number of Respondents	Wave 3 (2000) Response Rate
Program Input Measures							
Project Directors	C	112	97%	137	90%	125	90%
TUPE Coordinators	S	98	87%	76	84%	66	86%
School Administrators	S	167	85%	188	91%	173	80%
Teachers – On-site Survey (5th-, 8th-, and 10th- grade)	S	381	89%	443	90%	408	90%
Teachers – Mail Survey (5th-, 8th-, and 10th- grade)	S	145	45%	151	43%	66	54%
TCP budget appropriations	C, M, S	n/a	n/a	n/a	n/a	n/a	n/a
Media campaign spots, dissemination schedules, and financial statements	M	n/a	n/a	n/a	n/a	n/a	n/a
Media spot content analysis	M	n/a	n/a	n/a	n/a	n/a	n/a
Program Outcome Measures							
Adults (Computer-Assisted Telephone Interview (CATI))	C, M	6,985	58%[1] 98%[2]	8,122	58%[1] 95%[2]	6,916	53%[1] 96%[2]
5th-grade Youth	C, M, S	3,139	93%[3] 99%[4]	3,065	92%[3] 99%[4]	3,060	94%[3] 99%[4]
8th-grade Youth	C, M, S	5,870	99%[3] 99%[4]	5,457	99%[3] 99%[4]	6,238	97%[3] 99%[4]
10th-grade Youth (Comprehensive High Schools)	C, M, S	6,505	99%[3] 99%[4]	8,226	99%[3] 99%[4]	8,604	99%[3] 99%[4]
12th-grade Youth	C, M, S	n/a	n/a	n/a	N/a	8,577	99%[3] 99%[4]
Continuation High School Youth (grades 9-12)	S	n/a	n/a	1,120	98%[3] 99%[4]	n/a	n/a
Opinion Leaders (CATI)	C, M	712	68%	503	66%	501	53%
ETS Enforcement Agencies	C	209	80%	241	80%	186	72%
Youth Access Enforcement Agencies	C	176	83%	182	81%	187	80%
Local policy database from American Nonsmokers' Rights Foundation	C	n/a	n/a	n/a	n/a	n/a	n/a

n/a = not applicable
C = Community, M = Media, S = Schools
[1] Cooperation rate
[2] Completion rate of those successfully screened and eligible
[3] Implied parental consent rate
[4] Student consent rate (among those with parental consent)

Overview of This Report

This report provides a synopsis of the major findings of the third wave of the Independent Evaluation. It describes TCP activities, changes in program outcomes from the first to third, and second to third waves of data collection, and relationships between exposure to program activities and outcomes. It is organized as follows:

- Chapter 2 The tobacco marketing environment in California
- Chapter 3 Local programs findings related to Countering Pro-Tobacco Influences, Reducing ETS, and Reducing Youth Access to Tobacco
- Chapter 4 Statewide media campaign findings
- Chapter 5 School Tobacco Use Prevention Education Program findings
- Chapter 6 Overall impacts of the California Tobacco Control Program

A companion document, the *Independent Evaluation Technical Report,* provides more detailed information about evaluation methods and materials. The Technical Report is available under separate cover from CDHS/TCS.

CHAPTER 2

THE TOBACCO MARKETING EFFORTS IN CALIFORNIA

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THE TOBACCO MARKETING EFFORTS IN CALIFORNIA

Tobacco Marketing Changes in California

Tobacco marketing has gone through several changes in California in the past four years. With the advent of the tobacco industry's Master Settlement Agreement (MSA) with the State Attorney's General in 1998, there have been several restrictions on marketing, leading to the demise of pro-tobacco billboards, and limiting the number of events sponsorship contracts held by each tobacco corporation. Annual expenditures for cigarette and smokeless tobacco advertising and promotion by major manufacturers have risen from $5.81 billion in 1997 to $8.40 billion in 1999 (U.S. Federal Trade Commission (FTC), 2001a, 2001b). The corporations themselves have attempted to shift their image from being part of the problem to being part of the solution, typified by Philip Morris' efforts to embrace the Federal Drug Administration (FDA) regulations.

In this chapter we report on the advertising and promotional practices of the tobacco industry in California in 1999 and 2000, with comparisons over time and between states, when possible. Observations of magazines, newspapers, bars and clubs, brand merchandise catalogues, and direct mail campaigns were made by the Tobacco Industry Monitoring Evaluation (TIME) Project of the University of Southern California. Data on tobacco-sponsored events were collected by TIME staff and the staff and volunteers statewide who participated in Project Sponsorship Mission: Avoid Reliance on Tobacco (SMART) Money under the leadership of the California Department of Health Services Tobacco Control Section (CDHS/TCS). Observations of retail advertising and incentives were made by the Stanford Center for Research in Disease Prevention.

Events Sponsorship

In the last decade, sponsorship has grown dramatically as a method for promoting brand and corporate features. The tobacco companies establish a contract with a property (i.e., a facility, dance company, national association, race car team, etc.) such as the National Association for Stock Car Auto Racing Inc. (NASCAR) or the Professional Rodeo Cowboys Association (PRCA), they pay cash or in-kind fees, and in return they are able to market directly at the event and through activities before and after the event. The tobacco corporations may associate the sponsorship with their overall corporation, as with Philip Morris' support of the American Ballet Company, or with one of their many cigarette brands, such as Marlboro's sponsorship of Team Penske, a Championship Auto Racing Team (CART) with its race car and drivers. There is ample opportunity for expanded brand and corporate marketing via the event signage, free sample and brand merchandise booths, scoreboards, announcers, contestants, equipment used in the competitions, publicity and media coverage, websites, bar and club nights around the time of the event, and more. These multi-layered contracts heighten the visibility of tobacco, help distinguish the products from their competitors, and target the fans of these sports in a very involving and entertaining manner.

Expenditures by cigarette manufacturers for advertising and promotions through public entertainment reached $267.38 million in the United States in 1999 (U.S. FTC, 2001a). Expenditures by smokeless tobacco corporations for sports and sporting events reached $23.40 million in 1999 (U.S. FTC 2001b). These figures are augmented by funds spent for free samples at events, and event-related expenditures in other channels such as magazine and direct mail advertising.

In 1999 and 2000, a two-tiered approach was used to gather data on event sponsorship in California. The first tier involved identifying all tobacco-sponsored events in the state so that a census count could be completed. Once identified, organizers for each of these events were surveyed by phone to confirm characteristics such as the event size, and presence of tobacco marketing (TIME Event Census Database). The second tier involved observations of a purposively selected sample of tobacco-sponsored events in California, with at least one observation from each major sponsorship series, to learn about the types of tobacco promotional activities present at these events (TIME Event Observation Database).

There were 297 tobacco-sponsored events identified in California in 1999. This number dropped to 90 tobacco-sponsored events in 2000 (See Table 2.1). The change was due in large part to consolidation of sponsorship contracts by the tobacco corporations following the MSA, with the major drop occurring among Winston-sponsored racing events as smaller racing series were discontinued. In both years, the most common type of event with tobacco marketing was auto racing. Most events (73 percent of all events in 2000) were sponsored by brands such as Winston and Copenhagen/Skoal rather than by tobacco corporations (27 percent in 2000) such as Philip Morris and U.S. Smokeless Tobacco Company (U.S.S.T.).

Table 2-1
Types of Tobacco-Sponsored Events in California, 1999 and 2000

Primary Tobacco Brand or Corporate Sponsor	No. of Events in 1999	No. of Events in 2000	Major Types of Events
Winston	213	16	Racing
Copenhagen/Skoal	36	32	Rodeos, Some Racing
Kodiak	21	1	Bass Fishing
Philip Morris (corporate sponsorship)	13	11	Dance
Redman	6	6	Bass Fishing
Marlboro	3	4	Racing
Kool	3	3	Racing
U.S.S.T.	1	14	Rugby, College Rodeo
Other	1	4	
Total Events*	297	90	Racing, Rodeo

Source: TIME Event Census Database, 1999 and 2000
*Note: Some events are listed more than once because they had more than one sponsor.

Almost all of these events were part of tours or series that traveled throughout California or nationwide. Examples of nationwide sponsorship contracts in 2000 include:

- Rodeos with support from the Copenhagen-Skoal-sponsored PRCA rodeos (31 events)
- Winston-sponsored NASCAR and National Hot Rod Association (NHRA) racing series and teams (16 events)
- Marlboro and Kool sponsored CART racing (3 events)
- The Alvin Ailey Dance Theater sponsored by Philip Morris (4 events)
- Small bass fishing contests sponsored by Kodiak and Redman smokeless tobacco (7 events)
- National Intercollegiate Rodeo sponsored by U.S.S.T. (4 events)

These events reach many people with positive and engaging tobacco promotional messages. The brand-sponsored events provide ample opportunity for brand signage around the arenas, full-page brand and sponsor ads in the event programs, merchandise bags with brand names, sampling booths, and fun events such as small theaters with Winston racing footage, or mutton-busting (sheep riding) events for children at the rodeos. The corporate events tend to be more subdued, with positive corporate imagery conveyed by messages on the corporate web-sites and in the program sections listing donors.

In 2000, there were 67 tobacco-sponsored events observed by TIME staff, and the staff and volunteers of 57 TCS-funded tobacco control organizations throughout California. These data

were collected in support of a statewide program called Project SMART Money, designed to focus a spotlight on tobacco sponsorship and help design efforts to rid events and organizations of tobacco funding. These observations documented the most common types of tobacco promotional activities that occurred at these events (See Table 2-2).

Table 2-2
Frequency of Tobacco Promotional Efforts Observed at Events in 2000

Tobacco Promotional Activities	Event Type and Number of Events with Observed Promotion in 2000			
	Racing	Rodeo	Dance	Other
Signs/Billboards	10	13	0	1
Banners	9	25	0	2
Scoreboard	6	11	0	1
Booth	8	7	0	0
Sale or Distribution of Brand Merchandise	5	4	0	0
Free Samples of Tobacco	4	5	0	0
Smoker Surveys or Sign-up or Raffle	3	5	0	0
Name or Ad in Event Program	8	17	5	5
Computer or Video Game	2	0	0	0
Total Events Observed	14	41	8	4
Source: TIME Event Observation Database, 2000				

Most of the active tobacco marketing took place at brand-sponsored rather than corporate-sponsored events, with the major form of promotion involving advertisements in the event programs (39 percent of events), banners (40 percent), large signs or billboards (27 percent), or scoreboards (20 percent) at the events. Signs and banners were often widespread, especially at large racing events, or strategically placed, as could be found with the Copenhagen/Skoal banners on the bull-riding chutes at rodeo arenas.

Most of these events were family-oriented or drew a substantial number of youth, such as rodeos and racing events. Auto racing has become very popular among children, with NHRA and NASCAR featured in places such as cereal packages, Saturday morning cartoons, video games, and ESPN. During 2000, approximately 2,218,353 people attended the tobacco-sponsored events held across the state. Approximately 584,308, or 26 percent of these attendees were under 18 years of age.[1] This youth figure represents approximately 6 percent of the California population under age 18 during that year (State of California, 2001). The proportion of youth attendees was highest for fairs and rodeos (See Table 2-3). In addition to the actual event, some

of these rodeos and racing events were also shown on television, with tobacco corporate or brand signage visible during the shows.

Table 2-3
Audience Size and Youth Attendance at Tobacco-Sponsored Events in California in 2000

Event Type	Number of Events	Total Audience Size	Number Attendees Under 18	% Audience Under 18	Major Sponsors
Rodeos	37	354,057	124,903	35	Copenhagen/Skoal, U.S.S.T.
Auto Racing	20	1,581,127	390,815	25	Winston, Marlboro, Kool, U.S.S.T.
Dance	10	132,094	4,518	3	Philip Morris
Rugby	10	800	112	14	U.S.S.T.
Bass Fishing	8	275	60	22	Redman, Kodiak
Fairs/Festivals	3	120,000	63,900	53	Philip Morris, Timberwolfe, Winston
Adult Ballroom Event	2	30,000	0	0	Camel
Total	90	2,218,353	584,308	26	Copenhagen/Skoal, Winston, U.S.S.T., Marlboro, Kool, Philip Morris

Source: TIME Event Observation Database, 2000; and TIME Event Census, 2000.

Some contracts between tobacco corporations and events organizers are shifting from brand to corporate sponsorship. The MSA requires that sponsorship contracts signed before enactment of the MSA (November 1998) can no longer be "grandfathered in" after November 2001. At that time, each tobacco corporation will be allowed one brand-sponsorship contract and an unlimited number of corporate sponsorships. Support for adult-only events and venues such as bars are untouched by this ruling. Some sponsorships have shifted from brand to corporate sponsorship, such as Marlboro's sponsorship of AT&T's Fiesta Broadway in Los Angeles, which shifted to Philip Morris sponsorship in 1998. Copenhagen (a smokeless tobacco brand) sponsorship of Professional Bull Riding Events has switched to U.S. Smokeless Tobacco (U.S.S.T., the corporation that produces Copenhagen), as have the National Intercollegiate Rodeos. It is expected that Copenhagen/Skoal (two smokeless brands owned by U.S.S.T.) sponsorship of PRCA rodeos will end in fall 2001, to be taken over by the parent corporation, U.S.S.T., making room for Skoal racing as the one brand sponsorship for that company. Winston, Marlboro, and Kool continue as major auto-racing sponsors, though Winston has

gradually reduced some of the smaller NASCAR contracts it maintains. In a related move, some sponsorships have emerged under the guise of adult-only facilities at public events, such as Skoal booths at U.S.S.T. - sponsored Supercross motorcycle races and Camel tents at concert arenas.

Potential violations of the MSA and state law have been documented by the event observers for Project SMART Money and referred to the California Department of Justice for review and action. These include:

- Tobacco brand signage that advertises a tobacco brand rather than an event;
- Free tobacco samples given away on public land;
- Event signage up more than 90 days before or 10 days after an event takes place;
- Rodeos and auto-racing events with potential youth contestants (e.g., rodeo mutton busting or bull-riding contestants, rodeo queens, and race car drivers); and,
- Tobacco sampling booths accessible or visible to youth.

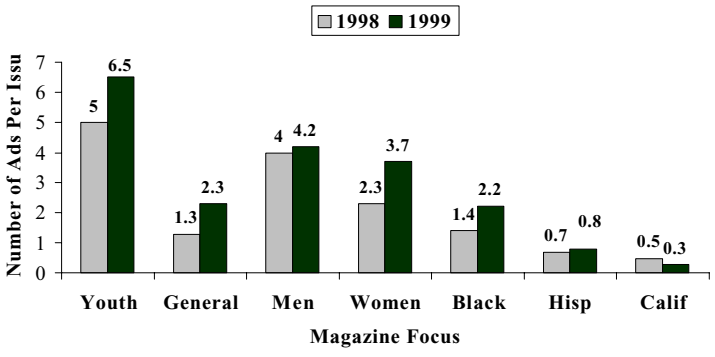
Magazines

Tobacco companies spent about 4.7 percent ($395.8 million) of their 1999 cigarette and smokeless tobacco advertising dollars on magazines (U.S. FTC, 2001a, 2001b). We surveyed several types of magazines for presence of tobacco advertising in 1999: 18 national magazines with high California readership, such as *People* and *Rolling Stone,* and 6 local California magazines, such as *Los Angeles Magazine*.[2,3] Magazines were monitored for six months.

Tobacco advertising prevalence is relatively high in national magazines with a large California readership, about 3.1 pro-tobacco ads per issue. In 1999, most of these ads, 94 percent (of the 569 pro-tobacco ads observed) were brand ads for specific tobacco products. In the 184 issues observed, only one anti-tobacco ad was found. The mean number of tobacco ads per issue varied by type of magazine, as shown in Figure 2-1.

- Magazines aimed at young adults and men had significantly more tobacco ads than magazines aimed at women, African Americans, Hispanics, general audiences, or local geographic regions in California ($p<.05$).
- The women's magazines included *Good Housekeeping*, which contained no tobacco advertising. If that publication is removed from the analysis, there were 4.9 tobacco ads per issue in the three remaining women's magazines.

Figure 2-1
Tobacco Ads in Magazines in 1998 and 1999



Source: TIME Magazine Dataset, June - November 1998, 1999

The national magazines with the highest proportion of teen readers have the highest mean number of tobacco ads per issue, 6.5 ads per issue in 1999. This represents an increase compared to the rates reported in 1998 (see Table 2-4). Marketing increased in these magazines in the year following enactment of the MSA, which was intended to limit tobacco advertising in magazines with high youth readership.

Table 2-4
Mean Number of Pro-Tobacco Ads Per Issue in National Magazines, June-November 1998 and 1999

Magazine	Audience Focus	Mean # of Tobacco Ads Per Issue	
		1998	1999
Spin	Young Adult Entertainment	5.0	7.3
Rolling Stone	Young Adult Entertainment	5.0	6.1
Field and Stream	Men's Sports	6.0	6.8
Sports Illustrated	Men's Sports	3.4	3.8
Cycle World	Men's Sports	4.2	3.7
Jet	African American	0.9	1.5
Ebony	African American	2.5	3.0
People	General	2.2	3.5
Time	General	0.4	1.0
Good Housekeeping	Women	0	0
Cosmopolitan	Women	4.0	6.0
Vogue	Women	3.2	3.6
Better Homes & Gardens	Women	2.2	5.0
Essence	African American	2.0	4.2
Hispanic	Hispanic	1.2	0.04
Buen Hogar	Hispanic	0	0
Cosmopolitan en espanol	Hispanic	0.8	1.2
People en espanol	Hispanic	1.0	1.4

Source: TIME Project National Magazine data; 1998, n=18 publications, 186 issues 1999, n=18 publications, 184 issues.

Models in national magazine tobacco ads tended to reflect the age and ethnicity of the intended audiences:[4]

- General audience magazines featured predominantly 18- to 49-year-old, white, male models.
- Young adult magazines featured predominantly mixed gender groups, with mostly white, 18- to 29-year-old models.
- Men's magazines had models who were predominantly male, white, and 18 to 49 years of age.
- Women's magazines had models who were predominantly female, white, and 18 to 49 years of age.
- African American magazines had ads with both male and female models, who were predominantly African American and almost entirely in the 18 to 29 year-old group.
- Hispanic magazines had models that did not have a predominant gender group, but the largest proportion of models appeared to be white and 30 to 49 years old.

The major brands advertised in each type of magazine were as follows:

- Youth Entertainment Magazines - Camel/Kamel, Kool, Winston
- General News & Entertainment - Marlboro, Basic, Camel, Merit
- Women's Magazines - Camel/Kamel, Marlboro, Merit, Misty
- Men's Magazines - Marlboro, Winston, Camel, Kool
- African American Magazines - Newport, Kool, Benson & Hedges, Salem
- Hispanic Magazines - Marlboro, Virginia Slims, Philip Morris

The national magazines provide an opportunity for integrating campaigns found in bars and clubs as well as at tobacco-sponsored events and in direct mail. Common campaigns included Winston's “No Bull,” and Camel's "Pleasure to Burn" ads, which seem aimed at an independent, young adult audience.

Local California magazines carried relatively little tobacco advertising, with a mean of 0.3 pro-tobacco ads per issue in 1999.

- Most of the tobacco ads were for cigarette brands, of which Benson & Hedges, Camel, and Carlton were the most commonly advertised in 1999.
- The number of tobacco ads per issue in local magazines has gradually declined from 0.9 per issue in 1996 (out of 41 issues) to 0.6 per issue in 1998 (out of 74 issues) to 0.3 per issue (out of 71 issues) in 1999.

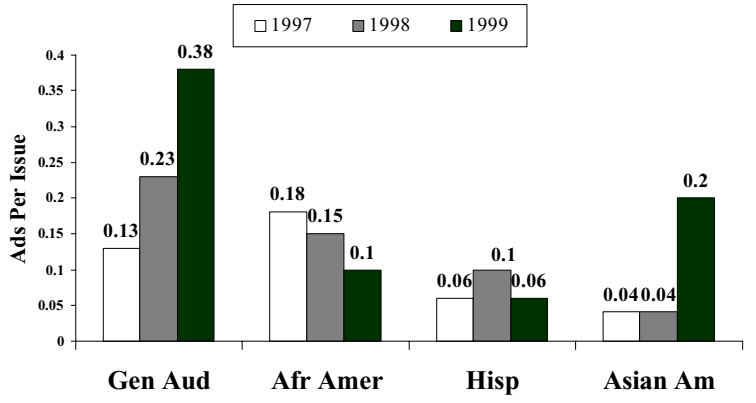
Newspapers

In the publications we monitored, newspapers carried relatively few tobacco ads compared to magazines. According to the FTC Reports, tobacco corporations spent $54.3 million on cigarette and smokeless tobacco advertising in newspapers in 1999, or approximately 0.6 percent of their total advertising expenditures (U.S. FTC 2001a, 2001b). It is possible that advertising categorized under public entertainment may have also subsidized newspaper ads for

tobacco-sponsored bars and events, since some of the ads we observed were for upcoming rodeos and auto races.

Pro-tobacco advertising has increased slightly in California newspapers, from an overall mean of 0.3 ads per issue in 1997 to 0.3 in 1998 and 0.7 in 1999.[5] This increase is largely due to an increase in pro-tobacco ads in general audience (from .23 to .38 ads per issue between 1998 and 1999) and weekly entertainment newspapers (from 5.2 ads per issue in 1998 to 5.7 ads per issue in 1999). (See Figure 2-2.)[6] There has also been a slight increase in tobacco ads in Asian American newspapers. At the same time, tobacco advertising prevalence has decreased among African American newspapers. Tobacco advertisements include promotions for tobacco brands, corporate messages, tobacco-sponsored event ads, ads for tobacco stores, and tobacco-sponsored bar and club listings.

Figure 2-2
Tobacco Ads Per Issue in Ethnic and General Audience Newspapers, 1997 - 99



Source: TIME Newspaper Dataset Jan – Dec 1997 (1655 issues), 1998 (1600 issues), 1999 (1608 issues)

The types of tobacco related advertisements found in general audience and ethnic audience newspapers in 1999 varied by type of newspaper (see Table 2-5). General audience newspapers carried more brand ads (31 percent of all tobacco-related ads) than other types of ads. African American newspapers carried a substantial number of anti-tobacco messages (61 percent), followed by tobacco-sponsored events. Hispanic newspapers were also dominated by anti-tobacco ads (75 percent), and Asian American newspapers primarily carried small black and white ads for tobacco retailers.

Table 2-5
Types of Tobacco Ads in Newspapers in 1999

Newsp Focus	No. of Ads	Tob Corp Promo	Tob Brand Ad	Anti-Tob Ad*	Tob Store	Tob Event	Tob Bar Night	Other	Leading Tobacco Sponsors
General Audience	104	0%	36%	10%	22%	26%	4%	3%	Winston, GPC, Doral
African American	36	11%	0%	61%	0%	17%	11%	0%	Philip Morris, Benson & Hedges
Hispanic	24	12%	12%	75%	0%	0%	0%	0%	Philip Morris, Marlboro
Asian American	106	0%	0%	21%	76%	1%	0%	2%	None

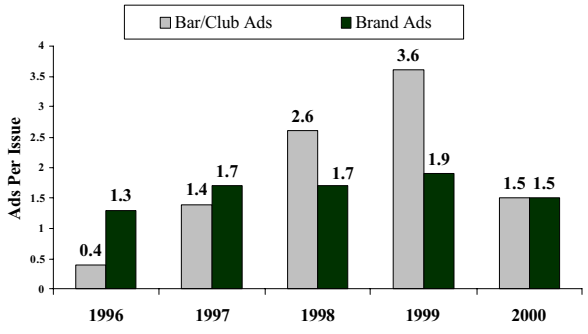
*Anti-tobacco ads include spots placed by public health groups such as the California Department of Health Services.
Source: TIME Newspaper Dataset, 1999

In general, there are few restrictions in the MSA that affect tobacco advertising in newspapers. It has been a very small part of overall advertising expenditures for tobacco corporations in the past. However, it appears to have increased between 1996 and 1999, largely due to the increase in tobacco-sponsored bar and club advertisements in weekly entertainment newspapers.

Bar and Night Clubs

Despite the emergence of restrictions on smoking in bars and clubs in California, advertisements for tobacco-sponsored bar and club nights in weekly entertainment newspapers proliferate. While the mean number of tobacco brand ads per issue has remained fairly stable since 1996, the mean number of ads per issue devoted to promoting tobacco-sponsored bar and club nights increased steadily between 1996 and 1999, and then declined in the first half of 2000 (see Figure 2-3).

Figure 2-3
Tobacco Brand and Tobacco-Sponsored Bar Advertisements in Weekly Urban Entertainment Newspapers, 1996 - 00



Source: TIME Project Weekly Entertainment Newspapers, 7 California Publications Monitored From May 1996 – June 2000, n=397 issues

Tobacco-sponsored promotions help bar and club owners advertise their businesses, while linking tobacco and evening entertainment for young adults. In 1999, there were 520 bars listed in these types of weekly ads in the major urban centers of San Diego, Los Angeles, Orange County, San Jose, San Francisco Bay Area, and Sacramento. In 2000, there were 474 separate bars. They are also beginning to emerge in Modesto, Fresno, San Bernardino, and scattered locations in more rural areas.

The number of bars associated with these sponsorships in California varied by brand in 2000:

- Camel, 257 bars
- Marlboro, 137 bars
- Lucky Strike, 65 bars
- Kool, 15 bars

The year 2000 brought forth the following campaigns:

- ***Lucky Strike*** - "Go Here," lists a mean of 14 bars and clubs per ad, typically in a busy and entertaining one-page format. Other features such as "Band-to-Band Combat" and "Hear Here" are half-page ads promoting an upcoming musical event held at a local bar or nightclub.

- ***Camel*** - "Your Guide to Urban Nightlife," (listing a mean of 16 bars and clubs per ad) ranges from a half- to a full-page ad, often with space devoted to brand promotion. "Pleasure to Burn," listing a mean of six bars and clubs per ad, typically devotes a half-page to product advertising and additional space promoting local entertainment events within a one- to two-page format.

- ***Marlboro*** - "You Get a Lot to Like," lists a mean of 15 bars and clubs per ad in a dramatic black and red one-page format. "Marlboro Ranch Party" lists a mean of three bars and clubs per one-page ad and features clips of activities enjoyed by ranch party-goers, using a western theme. Another two-page ad, simply called "Marlboro" exhibits two formats: one with a cowboy theme showing images of a cactus and night sky (mean of ten bars and clubs per ad), and a second featuring a simple bar theme with a dark background, abstract views of stars, and a pool table (mean of nine bars and clubs per ad).

- ***Kool –*** *"Kool Nites,"* lists a mean of six bars and clubs per ad, commonly in a one-page format amidst a black and green background.

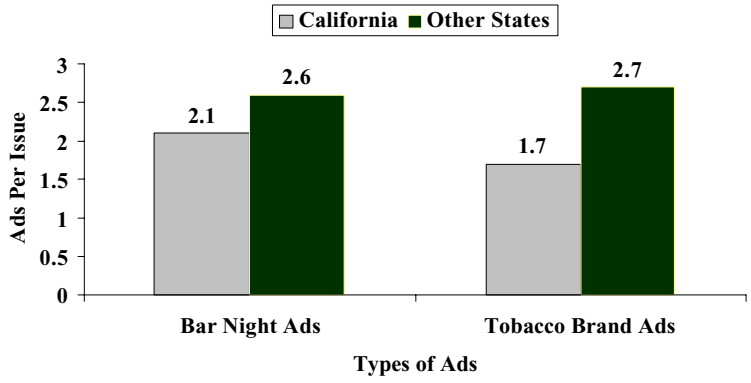
In 2000, TIME staff visited 20 of the advertised bars and clubs, and observed the following:

- Most of the businesses displayed tobacco promotional items, such as matches and napkins, imprinted with a brand name or logo on one side and the name of the establishment on the other.
- Ashtrays with tobacco brand logos were not frequently present on tables as in past years, but a few businesses placed standing steel knee-high ashtrays with brand names and logos outside entrances where patrons gathered to smoke. Although smoking was limited to outdoor locations, a few instances of smoking inside establishments were observed, despite the presence of no-smoking signs.
- Many of the establishments featured both indoor and outdoor signage. Posters, or in a few cases, hand-painted murals, reminded patrons of the availability of over-the-bar tobacco sales.
- Brands were also promoted heavily on display boxes located prominently near bar attendants. These display boxes were used to display tobacco for sale or to dispense items such as napkins and straws.
- On weekends and some weeknights, there were teams of young tobacco marketing staff, who distributed free cigarettes and other brand merchandise. Patrons could make their selection from a wide assortment of product lines on-hand.

- When there were special band promotions, such as "Camel Presents B-side Players" the brand promotional staff was present for the whole evening, and provided information, encouraged participation, and often distributed promotional items such as music and compact disc cases. Patrons were encouraged to provide their name and address or to provide their identification (ID) for photocopying, to be used by tobacco companies to send future offers by mail.
- The tobacco-sponsored bar and club nights were usually held in adult-only locations where alcohol was served, although some bars adjacent to restaurants often allowed younger patrons to attend and observe the promotion. Half of all bars observed checked IDs before allowing people to enter the facility, or before having patrons complete survey forms or receive free gifts or tobacco.

In our review of single issues of weekly entertainment newspapers from eight comparable states in the U.S., it was clear that the tobacco-sponsored bar and club phenomenon is flourishing in major urban centers throughout the U.S. Tobacco advertising in California is on par with other states. The mean number of tobacco brand ads and bar nights is similar when comparing seven California weekly entertainment newspapers with nine out-of-state publications (see Figure 2-4).

Figure 2-4
Tobacco Brand and Bar-Night Ads in California vs. Out-of-State Weekly Entertainment Newspapers in 1999



Source: TIME NINE-State Entertainment Newspaper Sample, March and April, 1999

Event-marketing activities, such as the sponsorship of bar and club nights in adult-only venues, are likely to endure. Bars and night clubs offer an ideal location to reach and interact with young adults in their lifestyle environments, creating the allure of a personalized relationship with its customers. In addition to garnering additional customers for direct mail efforts, this marketing strategy may undermine compliance with smoking ordinances by encouraging smoking violations by patrons and enlisting establishment owners' for the overturning of current smoking restrictions.

Retail Outlets

According to the FTC Report to Congress, the tobacco industry spent 47 percent of its $8.4 billion dollar marketing budget in 1999 on point-of-sale advertising and promotional allowances for cigarettes and smokeless tobacco (U.S. FTC 2001a, 2001b). It is clear that tobacco companies are using stores as a dominant venue for its pro-smoking messages. The California TCP identified advertising in retail outlets as an important priority in 1994 and brought national attention to this issue when the results of the Operation Storefront survey, conducted by over 700 volunteers, were released in 1995.

Tobacco Advertising in Stores

In Spring 1999, and 11 months later in 2000, the Stanford Center for Research in Disease Prevention completed surveys of randomly selected stores in California to assess the amount and type of cigarette advertising in stores. In 1999, 590 store surveys were completed; of these, surveys were completed in 541 stores again in 2000. Findings reported here are from the 541 stores for which we have data from the two surveys. The surveys were conducted by trained data collectors who counted the number of signs, functional items such as clocks and change trays and displays used to promote the sale of cigarettes. Information also was obtained about signs relating to illegal sales of tobacco to minors. The counting protocols used in 1999 included one primary tobacco brand ad on each tobacco display, but did not count secondary ads. In 2000, the protocol was modified to include all tobacco brand signs on displays. Secondary display ads were counted as additional interior signage. In order to maintain comparability between 1999 and 2000, this modification was ignored in the trend analyses presented here. However, alternate data for 2000 also are presented here to reflect the new and more comprehensive protocol.

Overall, cigarette advertising increased significantly from an average of 17.1 materials in 1999 to an average of 19.0 materials in 2000 (p<. 01). The total amount of cigarette advertising, including signs, functional items, plexi-glass enclosed packs, and displays, increased significantly in supermarkets, small markets, convenience stores with gas, and liquor stores. The increase is largely attributable to a 33 percent increase in signs. From 1999 to 2000, signage increased from an average of 11 per store to an average of 14.6 per store (p<. 01). (See Table 2-6.)

Table 2-6
Mean Number and Types of Tobacco Retail Advertising by Store Type in a Panel of 541 California Stores, 1999 vs 2000

Store type (n)	Signs **				Functional Items			Displays			Plexiglass Enclosed Packs		
	1999	2000	chng	Alt 2000	1999	2000	chng	1999	2000	chng	1999	2000	chng
Convenience (29)	6.6	10.0	3.4 *	13.0	2.0	1.3	-0.6 *	4.1	1.4	-2.7 *	1.8	0.6	-1.2 *
Conven/ Gas (122)	9.4	13.8	4.5 *	17.3	1.6	1.6	0.1	3.6	1.7	-1.9 *	1.0	0.9	-0.1
Gas Only (37)	6.5	8.3	1.8 *	10.5	1.3	1.0	-0.3	2.2	0.9	-1.3 *	0.2	0.3	0.0
Liquor (113)	18.6	23.2	4.6 *	28.2	3.4	3.2	-0.2	4.6	2.2	-2.4 *	1.4	1.5	0.1
Pharmacy (40)	6.1	5.2	-0.9 *	19.5	0.0	0.0	0.0	7.0	5.8	-1.2	0.3	0.5	0.1
Small Market (139)	11.8	15.3	3.5 *	18.5	1.9	1.8	-0.1	2.4	1.5	-0.8 *	0.8	0.7	-0.1
Supermarket (61)	6.9	11.1	4.2 *	11.9	0.6	0.4	-0.2 *	0.5	0.3	-0.2	0.2	0.2	0.0
Total (541)	11.0	14.6	3.6 *	18.8	1.8	1.7	-0.1 *	3.3	1.8	-1.5 *	0.9	0.8	-0.1

* $p < .05$

** Data collection protocols were modified in 2000 to include all branded signs on displays; in 1999, only the primary branded sign on each display was recorded. Comparable data are presented in the first two columns. The alternate 2000 column contains data using the new protocol. It is not comparable to 1999 data.

Several interesting findings are not presented in tables:

- There was a small, statistically significant increase in cigarette advertising near the check-out counter from 1999 to 2000. The average number of cigarette advertising materials near the counter increased significantly from 10.9 in 1999 to 12.0 in 2000 ($p < .01$).
- The amount of overall exterior store cigarette advertising, including signs and functional items, did not change between 1999 and 2000 across all store types, except convenience stores.
- The average number of exterior cigarette advertising materials almost doubled in convenience stores from 1.2 in 1999 to 2.3 in 2000 ($p=.03$).

With the exception of supermarkets and pharmacies, most store types showed significant decreases in cigarette displays, going from an average of 3.3 in 1999 to an average of 1.8

displays in 2000 (p<.01). In fact, pharmacies continue to lead the pack in terms of self-service displays with an average of 5.8 per store (see Tables 2-6 and 2-7).

The use of plexi-glass displays with enclosed packs remained virtually the same at both time points; only chain convenience stores experienced a significant decrease in the use of plexi-glass displays. Though not displayed in the table, the proportion of stores with displays next to candy significantly decreased from 1999 to 2000 (p<.01), again with the exception of supermarkets and pharmacies.

Table 2-7
Total Retail Marketing Materials by Store Type in a Panel of 541 California Stores, 1999 vs 2000

Store Type	N Stores	Mean number of materials**				
		1999	2000	change	p	Alt 2000
Chain Convenience Stores	29	14.6	13.4	-1.2	.33	15.8
Chain Convenience with Gas	122	15.6	18.1	2.5	.02*	20.6
Gas Only Stations	37	10.2	10.4	0.2	.83	12.3
Liquor Stores	113	28.0	30.1	2.1	.19	33.6
Pharmacies	40	13.4	11.4	-2.0	.07	25.3
Small Markets	139	16.9	19.3	2.5	.03*	21.9
Supermarkets	61	8.3	12.0	3.7	.02*	12.6
Total	541	17.1	19.0	1.9	.00*	22.3

* p<.05

** Data collection protocols were modified in 2000 to include all branded signs on displays; in 1999, only the primary branded sign on each display was recorded. Comparable data are presented in the first two columns. The alternate 2000 column contains data using the new protocol.

There is good news with regard to compliance with one provision of the MSA. In 1999, 89 percent of stores were in compliance with the MSA prohibiting large exterior signs (over 14 sq feet). By 2000, the number of compliant stores had increased significantly to over 95 percent (p<.01). We also found that compliance with the MSA provision that prohibits the use of cartoons in cigarette ads is high. In 1999 and in 2000, over 95 percent of stores met the Master Settlement Agreement's prohibition on cartoons.

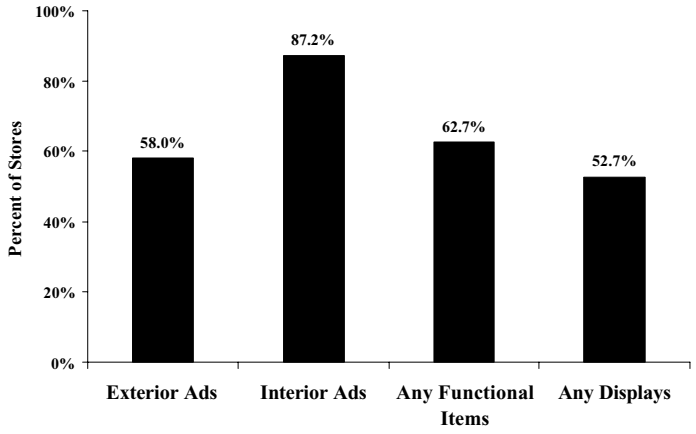
Tobacco advertising located at or below three feet did not change over the 11 months; in both 1999 and 2000, nearly half of all stores we sampled (47.6 percent of all stores in 1999,

and 45.2 percent in 2000) featured advertising at or below three feet. The only exception to this was convenience stores, where advertising at or below three feet decreased significantly from 43 percent in 1999 to 27 percent in 2000.

Compliance with provisions of the STAKE Act continues to be disappointing. In 1999, 58 percent of the stores displayed STAKE Act signs. In 2000, there was little improvement with only 61 percent of the stores displaying them.

A look at the proportion of stores that carry various marketing materials is interesting. Between 50 percent to 87 percent of the stores sampled in 2000 had exterior and interior ads, functional items and product displays (Figure 2-5).

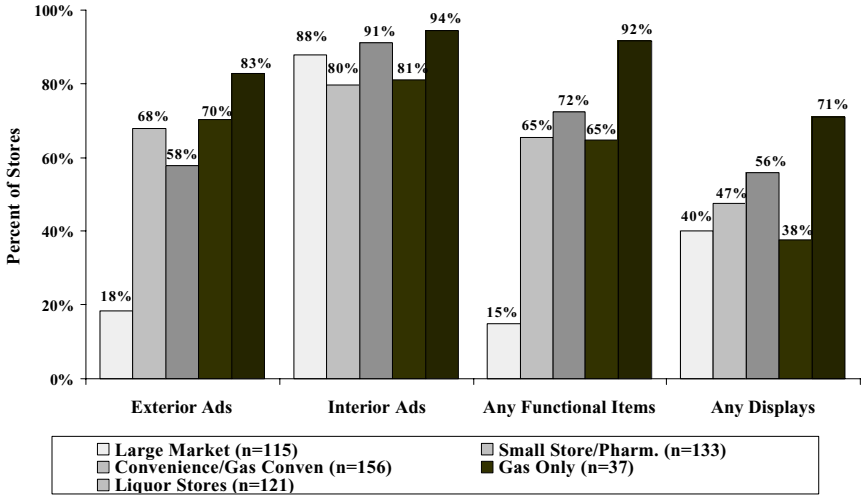
Figure 2-5
Percent of Stores with Various Tobacco Marketing Materials in 2000



Data Source: California Tobacco Ad Survey 2000 using data from revised data counting protocol (N=571 stores)

When the data are displayed by store type (Figure 2-6), the vast majority of stores that sell tobacco, regardless of type of store, have tobacco ads inside the store. With the exception of large markets, this also is true for exterior store advertising and functional items such as coin cups and counter mats. The proportion of stores with product displays varies widely, from about 38 percent of gas only stores compared to about 71 percent of liquor stores. These data indicate that it is the norm for stores that sell tobacco to market these products in various ways thus making it virtually impossible for shoppers to find stores that are free of pro-smoking marketing materials.

Figure 2-6
Percent of Stores, By Store Type, with Selected Tobacco Marketing Materials in 2000



Data Source: CA Tobacco Ad Survey 2000 using data from revised counting protocol (N=562 - does not include 9 Tobacco and "other" stores)

Tobacco Company Incentives for Retailers

Tobacco companies provide financial incentives such as money and free or discounted products to encourage retailers to carry their products, display them in prime locations, and prominently display their advertising. These strategies are used by many other manufacturers and companies to motivate retailers to create in-store merchandising environments that maximize sales of their products.

While anecdotes abound about the amount of money retailers receive from tobacco companies, little scientific data are available on retailer incentive programs. Given the magnitude of cigarette marketing expenditures in the retail outlet, the Stanford Center for Research in Disease Prevention conducted a study in Spring 1999, to find out about the types and amounts of incentives received by California tobacco retailers compared to those received for two other commonly sold products: soda and chips. In Spring 1999, telephone interviews were completed with a random sample of owners or managers in 202 small retail outlets in California. Eleven months later, in 2000, owners or managers from 73 of these outlets completed telephone interviews. With regard to incentives received:

- There were no statistically significant changes in retailer incentives from 1999 to 2000.[7] (See Table 2-8.) **In 1999, 59.4 percent of stores reported that they receive incentives from tobacco companies; in 2000, 55.1 percent reported that they receive them**.
- The proportion of stores that received specific types of incentive (cash, discounted product, free goods, and buy-downs) did not change significantly either. Moreover, the amount of money received over the last three months did not change significantly in the subset of stores that indicated they received money in either 1999 or 2000.

Table 2-8
Types of Tobacco Retailer Incentive Programs in a Panel of 73 California Stores, 1999 vs. 2000

Incentive	1999		2000		Change	p
Contractual Agreement With Tobacco Company	52.8%		59.7%		6.9%	0.36
Received Tobacco Incentives in the Past Three Months	59.4%		55.1%		-4.3%	0.63
Discounted Products	36.6%		31.0%		-5.6%	0.48
Free Goods	16.9%		21.1%		4.2%	0.58
Buy-downs	40.0%		37.1%		-2.9%	0.83
Money	42.6%		39.3%		-3.3%	0.79
	Mean	sd	Mean	sd	Change	p
Amount of Money in Last Three Months*	$553	616	$513	970	-$40	0.78

* Of those who received money in either year (n=30). Two outliers were removed based on box plots of change scores by store type.

Characteristics of the relationships between retailers and tobacco sales representatives remained stable also. Sixty-one percent of retailers indicated that the tobacco sales representatives were the most aggressive of all "reps" in 1999, and this number remained high at 55 percent in 2000. The frequency of contact with sales representatives did not change over time, nor did the reported level of influence tobacco sales representatives have over the placement of products and advertisements.

Finally, the amount of money lost in a typical month to shoplifting of cigarettes from stores remained stable despite decreases in the average number of cigarette displays per store.

Tobacco Promotional Flyers

With the elimination of billboard advertising, a mandate of the MSA, tobacco promotional flyers have enjoyed an expanded role in tobacco marketing campaigns. Point-of-purchase materials, offered free from retailers, feature tobacco merchandise catalogues, sweepstakes entries, and membership opportunities for those with an affinity for motor sports. In addition to furnishing special offers and promoting tobacco-sponsored events, direct mail promotions have become increasingly personalized. Brand customers are the recipients of absentee ballots, thank you

letters, and birthday and holiday wishes. Both categories of tobacco promotional flyers are described separately below.

Convenience Store Promotional Flyers

In 1999, a total of 83 tobacco brand booklets, catalogues, and other printed promotional materials were collected in convenience stores and coded for content and source. All tobacco promotional handouts or display materials available for free were collected in all the convenience stores in 1-3 mile commercial thoroughfares randomly selected in eight counties with a moderate to high density population.[8]

The most common materials were sweepstakes entries from Basic, Marlboro, and Winston. As with retail outlet displays, described above, Marlboro is the dominant type of promotional material found in convenience stores. The collected materials, commonly displayed by the cash register or other prominent locations through the store, included the following titles:

- Thirty-four percent Party at the Marlboro Ranch (sweepstakes)
- Thirty-two percent Basic 'The Best Things in Life Are Basic' (sweepstakes)
- Eleven percent Winston 'No Bull 5' (sweepstakes)
- Six percent Camel Cash 'Mighty Tasty Lifestyles' (catalogue)

Of the 83 brand materials coded, none contained cartoon characters. Slightly over half (56 percent) contained photographs of real people.

- Ninety percent of the materials contained models in groups of three or more people.
- Ninety-two percent of the materials featured both male and female models together. Male and females were portrayed equally exclusively (4 percent).

Virtually all the materials stated that customers must be 21 years of age or older in order to exchange tobacco coupons for brand merchandise or to enter a sweepstakes. Proof of age identification was required 99 percent of the time; however, it would not be difficult for younger people to enter contests or receive promotional offers. For a majority of the materials, they need only provide a birth date that will qualify them of age and a signature.

Direct Mail Booklets, Flyers, Coupons, and Catalogues

A total of 121 booklets, catalogues, and other printed promotional materials were collected through direct mail sent to TIME staff, TCS-funded staff, and volunteers from January 1999 to June 2000 in California. There were duplicate titles among those collected. All were coded for content and source.[9] **The most common title among the direct mail materials was Shoppers Savings. In partnership with retail stores such as Circle K and 7 Eleven, and grocery stores like Albertson's and Von's, these materials offered coupons or special savings for a variety of brands from a single manufacturer.** This title represented 14 percent of the total sample. Not surprisingly, a good majority of direct mail materials promoted 'savings' as a primary theme. Materials frequently coupled 'savings' with other themes such 'excitement/thrills' and 'good times'.

Similar to convenience store flyers, Marlboro is the dominant type of promotional material received. The most visible titles produced by Marlboro included:

- Five percent 'Unlimited' (magazine)
- Four percent 'Ranch Party' (sweepstakes)
- Four percent '200 Miles Gets You In' (sweepstakes)
- Four percent 'Marlboro special offers' (coupons)

Over one-third of the materials contained photographs of real people. Of those with people featured:

- Thirty-six percent of the materials featured models in groups of three or more people.
- Twenty-nine percent of the materials had female models only. Similarly, males only were portrayed in 26 percent of the materials, and 38 percent of the materials contained both male and female models.

Opportunities for consumer involvement are high. A total of 82 percent of materials fostered ways for consumers to maintain and develop brand loyalty. Consumers may increase their communication with tobacco companies and other customers with similar interests by calling a 800-number, visiting a website or joining a club. The most commonly featured ways consumers may become involved include:

- Redeem coupon (24 percent)
- Provide opinion (11 percent)
- Enter sweepstakes (10 percent)

Not all of these forms of involvement are restricted to adults, as will be shown below.

Direct Mail Age Restrictions and Proof of Identification

Among the 121 direct mail materials collected after the MSA (January 1999 - June 2000), there were several duplicates collected by our direct mail recipients (e.g., the same publication sent by a tobacco company to more than one of our data collectors). After omitting duplicate titles of the same type of material, there remain 60 distinct direct mail items collected (e.g., Marlboro Ranch Party, Winston Racing Nation, etc.), which were categorized into 17 types of materials (e.g., sweepstakes entry, bar night ad, etc.) representing 26 brands and five companies.

The following analysis was conducted using a collection of items that omits duplicate titles, except for those mailings that represent different types of materials. A total of 60 direct mail materials were analyzed.

Table 2-9
Percentages and Frequencies of Direct Mail Materials with Stated Age Restrictions By Tobacco Company

Age Restriction	Company					
	Brown & Williamson	**Philip Morris**	**RJ Reynolds**	**U.S.S.T.**	**Other**	**TOTAL**
No						
%	22.2	19.2	0	33.3	25.0	
(n)	(2)	(5)	(0)	(1)	(1)	9
Yes						
%	77.8	80.8	100	66.7	75.0	
(n)	(7)	(21)	(18)	(2)	(3)	51
TOTAL	9	26	18	3	4	60

Direct mail frequently contains a statement indicating that the materials are intended for smokers 21 years old and over. (U.S.S.T. is the only company that specifies an age of 18.) Table 2-7 illustrates that 85 percent of the direct mail materials collected specify an age restriction. When comparing tobacco companies, RJ Reynolds appears to be the most consistent of the five companies with 100 percent of their materials mentioning age restrictions, while U.S.S.T. is the least consistent with 33.33 percent of their mailings failing to include such a statement. While Philip Morris tends to be the highest disseminator of direct mail promotions (42 percent of all materials collected), they are not the most consistent in terms of printing age restrictions.

When tobacco companies make requests for identification, proof of age is sought in one of two ways. Receivers of direct mail can either (1) fill in their birth date along with signature, or (2) provide a copy of a driver's license or state-issued identification card. It is implied that receipt of further mailings is contingent upon presentation of these types of age verification. On occasion, tobacco companies will mail materials whose sole purpose is to obtain such information.

While 85 percent of direct mail materials collected reference age restrictions, only half of these materials also make requests for age verification (see Table 2-10). Although mailings may specify an age limitation a great majority of the time, they may not always contain a request for identification, which may explain the lower percentages illustrated in Table 2-10. When comparing tobacco company requests for age verification, U.S.S.T. appears to be the most consistent, while RJ Reynolds is the least. Interesting to note is that although RJ Reynolds always prints age restrictions on their direct mail materials, they request proof of identification less frequently than other companies.

Table 2-10
Percentages of Direct Mail Materials that Request Proof of Identification By Tobacco Company

Proof of ID Requested	Company					
	Brown & Williamson	**Philip Morris**	**RJ Reynolds**	**U.S.S.T.**	**Other**	**TOTAL**
No						
%	44.4	42.3	66.7	33.3	50.0	
(n)	(4)	(11)	(12)	(1)	(2)	30
Yes						
%	55.6	57.7	33.3	66.7	50.0	
(n)	(5)	(15)	(6)	(2)	(2)	30
TOTAL	9	26	18	3	4	60

Direct Mail Magazines Published by Tobacco Companies

Magazines are a newly added component of many direct mail campaigns. All major tobacco companies are currently producing quarterly publications that are geared towards specific audiences. Customers or subscribers receive complimentary copies of these magazines in the mail or may obtain them at tobacco-sponsored events. Publications may include a combination of articles, merchandise promotions, and/or mail order catalogues. A total of 13 direct mail magazine issues were collected and analyzed.

- **CML** (Camel, RJ Reynolds): A combination magazine and catalogue targeting adult males and females. It contains fiction, reportage, and the latest trends in entertaining, fashion and travel. A variety of tobacco products can be ordered, including premium special products and accessories.

- **Real Edge** (Brown & Williamson): A publication targeting young adult males promising 'the real story on the stuff that interests guys today like cars, music, girls, the latest high-tech equipment, and straight talk.'

- **Flair** (Brown & Williamson): With a circulation of 2.5 million, Flair is aimed at young adult females. It offers the modern woman information and advice on the latest beauty and fashion trends, new ideas for travel, home and entertaining, and insights into common life issues.

- **Unlimited** (Marlboro, Philip Morris): Geared toward adult males, this publication emphasizes action, adventure, and good times. Similar to Real Edge, Unlimited provides timely pieces highlighting travel, sports, high-tech gadgets, guide to popular events, music, food, and recreation equipment.

- **Heartland** (U.S.S.T.): Unlike the previous magazines, customers receive Heartland on a bimonthly basis. This magazine, which appeals to adult males, reflects an adventurous lifestyle, profiling travel destinations, sports such as hunting, fishing, and horseback riding, along with product information and advertisements for firearms.

Table 2-11
Summary of Product Advertisements in Direct Mail Magazines, January 1999 – July 2000

Publication	Brands Advertised	Mean Number of Tobacco Ads Per Issue
CML	Camel Premium Brands	19
Real Edge	Kool, Lucky Strike	3
Flair	Capri, Lucky Strike, Kool	6
Unlimited	Marlboro	2
Heartland	Copenhagen	4

By producing their own magazines, tobacco companies may channel their advertising dollars more efficiently and develop a direct relationship with a very specific audience: smokers. Companies may promote many product lines within a publication and associate smoking with lifestyle imagery and ideas.

Summary

Since 1998, tobacco billboards have disappeared after several years of declining prevalence. Tobacco-sponsored events have consolidated to a few large brand name sponsorships, predominantly in auto-racing and rodeos. Corporate sponsorships have been substituted for several brand sponsorships, and this trend will continue in November 2001, when Copenhagen/Skoal-sponsored PRCA rodeos convert to U.S.S.T. corporate-sponsored events. Magazines continue to carry high levels of advertising, and these rates are highest in magazines with substantial youth audiences. Newspapers carry relatively low levels of tobacco marketing, with the dominant theme being bar and club nights in urban areas. Tobacco advertising signage has increased in frequency in retail outlets, but there is good adherence to MSA restrictions that limit signs to 14 square feet on exteriors of stores. Materials aimed directly at individual smokers, through direct mail and promotional catalogues and magazines published by tobacco companies are becoming more common, with images that associate tobacco with certain lifestyles, and that integrate the marketing themes found in magazines, newspapers, stores, and events.

Endnotes—Chapter 2

1. The percentage of attendees under 18 was determined in one of two ways. For all events with observations conducted on-site, observers were asked to estimate the percentage of the audience members under 18 by observing and estimating age (under 18, 18 or older) for a sample of 100 people drawn from different locations in the event. If there were no data on this age estimate from an event observation, then the age estimate was requested in a phone call to the event organizer. An age validation study, conducted in August 2000 by TIME staff, found that visual observation of event attendees could accurately identify age (under 18, 18 or older) over 90 percent of the time.
2. The sample included two general audience magazines, two youth entertainment magazines, four women's magazines, three men's magazines, three African American magazines (one men's, one women's, one general adult), four Hispanic magazines (two women's and two general adult) and seven local magazines from regions of California (previously reviewed in 1997). Each magazine was monitored for six months.
3. Demographic breakdown of magazine audiences was drawn from the 1997 MRI Twelveplus study, Market Research Inc., 1997.
4. Trained coders identified the characteristics of models.
5. The 21 publications in our study represented the largest circulation newspapers in San Diego, Los Angeles, and San Francisco, as well as the largest circulation ethnic-audience and weekly urban entertainment newspapers. The general audience and ethnic audience newspapers included daily and weekly publications. The sample included three general audience, four African American, five Asian American, six Hispanic, and three weekly entertainment newspapers. The entertainment newspapers, also known as alternative newspapers, are the sort given away in restaurants, bookstores, and coffee shops. We sampled 57 percent of the daily issues and all of the available weekly issues for content analysis of tobacco advertisements, for a total of 7,322 issues reviewed from May 1996-December 1999. Trained coders identified the types of tobacco ads, sponsors, and characteristics of the models.
6. Three entertainment newspapers were monitored from 1996 through June 2000 (*L.A. Weekly*, *San Francisco Bay Guardian*, *San Jose Metro)*; each issue was coded for a variety of tobacco advertising-related characteristics. Comparisons over time are drawn from these three publications, with six months of issues from 1996, 1997, 1998, 1999, and 2000. In 1998, we added five more publications, from San Diego, Los Angeles, and San Francisco, to track the extent of bar sponsorship in major cities.
7. In the statistical analysis of store data, differences among groups were tested with repeated cross-measures general linear models.
8. In 1999, we collected brand merchandise catalogues and promotional literature from all convenience stores in our billboard study areas (major thoroughfares, one to three miles long, in 44 commercially zoned areas in the largest city in each of eight counties). The materials were collected during March, April, and May 1998.

9. We recruited three men and six women to sign up for tobacco company mailing lists, while at tobacco-sponsored events, or through retail store promotional materials. These six participants shared all materials received during 1998-2000 by tobacco companies through the mail.

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CHAPTER 3

LOCAL TOBACCO CONTROL PROGRAMS

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A. INTRODUCTION TO LOCAL TOBACCO CONTROL PROGRAMS

Funded Agencies

The California Tobacco Control Program (TCP) conducts local community programs as part of its overall strategy to change social norms about the acceptability of tobacco's presence in society. During each funding period, the California TCP provides monies to all of California's 61 local health departments, and through a competitive grants process, funds as many community-based organizations as budgets allow.

During the most recent evaluation period, the California TCP funded 143 TCPs throughout the state, including:[1]

- Sixty-one local health departments, designated as Local Lead Agencies (LLAs), that manage local tobacco control coalitions and implement a local comprehensive tobacco control plan.
- Eleven regional community linkage projects, each encompassing one to fourteen counties, that assist coordinated efforts among the local TCPs in each region.
- Four statewide ethnic networks that conduct advocacy campaigns, training, and technical assistance programs that serve specific ethnic populations (African American, Native American, Asian, and Hispanic).
- Sixty-seven local (city- or county-specific), multi-county, or statewide competitive grantees that develop and implement a variety of focused community projects. These grantees include local voluntary health organizations such as the American Lung Association, university-based interventionists and evaluators, and a variety of nonprofit community-based organizations.

These local TCPs are led by experienced project directors. In 2000, project directors for the local TCPs averaged seven years of tobacco control experience (ranging from less than 1 to 23 years) and four years at their current agency (ranging from less than 1 to 17 years). These project directors are pivotal leaders in creating and implementing the tobacco control efforts that are based on the program priority areas of the California TCP.

Program Priority Areas

Local TCPs work to achieve environmental- and community-level objectives that focus on social norm changes within three broad priority areas: countering pro-tobacco influences, reducing exposure to environmental tobacco smoke, and restricting youth access to tobacco products. Local TCPs work in two additional areas of activity, tobacco use cessation and prevention/other. These two areas involve significantly less activity than the above three priority areas. For example, in 2000, less than 6 percent of programmatic effort went towards cessation activities and about 12 percent went to prevention and/or other activities. In this chapter, we focus on the three main priority areas.

Countering Pro-Tobacco Influences (CPTI)

CPTI activities focus on blocking and restricting specific tobacco industry activities related to the advertising and promotion of tobacco. CPTI efforts increase the public's awareness of positive portrayals of tobacco and the tobacco industry, and they decrease the public's tolerance for these messages. CPTI efforts also seek to reduce the presence of pro-tobacco messages and images such as those outlined in Chapter 2 of this report. Some specific aims of the CPTI priority area are to:

- Reduce tobacco advertising outdoors and in retail environments.
- Restrict tobacco sponsorship of community, cultural, and entertainment events.
- Reduce the prevalence of smoking on television and in movies.
- Limit industry activities such as campaign contributions and lobbying.
- Counter efforts of the tobacco industry that promote a positive "corporate image" via its association with and donations to philanthropic causes.
- Encourage divestment of tobacco industry stocks.
- Promote the voluntary adoption of policies against acceptance of tobacco industry sponsorships and donations.

Reducing Exposure to Environmental Tobacco Smoke (ETS)

Protecting people from exposure to ETS includes community activities that increase the public's awareness of the harmful effects of ETS and decrease the public's acceptance of ETS in personal, public, and private spaces, both indoors and outdoors. ETS reduction efforts encourage nonsmokers to construct personal environments where smoking is not allowed (e.g., smoke-free homes) and persuade smokers to accept smoking regulations in various settings (e.g., bars) so as not to expose others to secondhand smoke. Some specific aims of the ETS priority area are to:

- Educate the public about the dangers of ETS.
- Encourage the voluntary adoption of smoke-free home and car policies.
- Promote and enforce state policies that restrict smoking in public places, restaurants, worksites, and bars.
- Pass or strengthen local ordinances to reduce ETS exposure.
- Encourage the voluntary adoption of smoke-free policies in other public areas such as parks, college campuses, sporting events, and community events.

Restricting Youth Access (YA) to Tobacco Products

Restricting YA activities focus on monitoring where youth get their tobacco (e.g., older friends or convenience stores) and creating interventions to stop access at the source. These efforts include educating different community segments about the extent of the problem and what constitutes compliance with state YA laws (e.g., checking identification before selling cigarettes). Some specific aims of the YA priority area are to:

- Reduce the illegal sales of tobacco products to minors through education of merchants and law enforcement officials.

- Increase support for enforcement of youth access laws (e.g., via stings to identify merchants who sell tobacco to minors).
- Promote policies regulating how and where tobacco is sold (e.g. self-service display bans, conditional use permits, etc.).
- Address social sources of tobacco by stressing to adults the importance of keeping tobacco products away from youth.

Tobacco Use Cessation and Prevention/Other

Cessation activities include promoting use of the state's cessation help line, integrating culturally appropriate cessation services into other institutions, and educating the public about the dangers of chewing tobacco and cigar use. Other community activities to reduce the prevalence of tobacco use include educating the public about the dangers of alternative tobacco products (e.g., bidis or blunts), coordinating with individuals and groups who work on other local, state, federal, and transnational tobacco control initiatives and/or laws, and general tobacco use prevention.

Interaction between Priority Areas

Each of these priority areas interacts and affects the others in a dynamic process of change. For instance:

- Portraying the truth about tobacco's lethal effects (CPTI) may influence smokers to curb their smoking around nonsmokers (ETS).
- Reducing tobacco industry sponsorship of community and sporting events (CPTI) could reduce the opportunities youth have to acquire tobacco products (YA).
- Passing local policies to restrict smoking at zoos and parks (ETS) could establish expectations that smoking is not the norm and decrease the attractiveness of smoking to youth (CPTI).

In short, the combined effect of each "approach is to indirectly influence current and potential future tobacco users by creating a social milieu and legal climate in which tobacco becomes less desirable, less acceptable, and less accessible" (Tobacco Control Section, 1998).

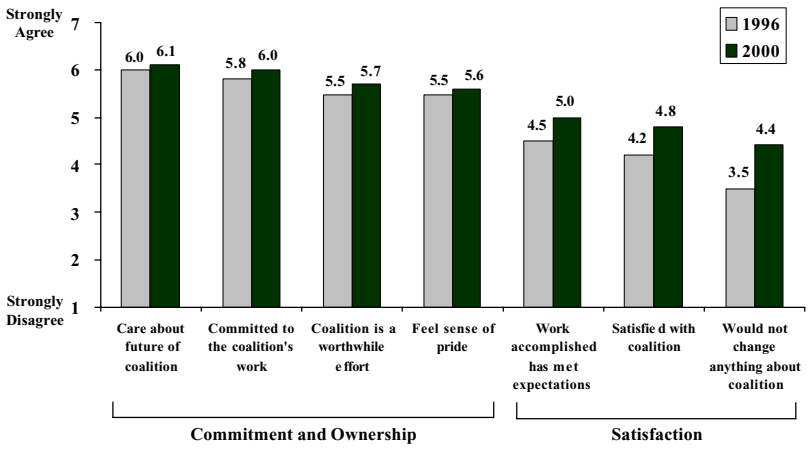
Community Involvement in Local TCPs

A basic tenet of the California TCP is that more can be accomplished if the local TCPs involve community members in the planning and implementation of programs, and collaborate with other community organizations in these efforts. To this end, the California TCP mandated that each LLA and regional team form a community tobacco control coalition. These coalitions are comprised of people who represent different constituencies within the community (e.g., local media, education, diverse ethnic groups, and law enforcement). The California TCP also has provided training and technical assistance to local TCPs on strategies for involving other community-based groups and organizations in tobacco control efforts. The Independent Evaluation measured project directors' views about their local tobacco control coalitions and the extent to which local TCPs used collaboration as a means of mobilizing the community around tobacco issues.

Tobacco Control Coalitions

In 1996 and 2000, local TCP project directors answered a series of questions about the functioning and success of their coalition.[2] Figure 3-A1 shows that project directors had a high degree of commitment toward, and ownership for the work of their coalition in both evaluation periods. Project directors' levels of satisfaction with the work of their coalition were also generally high. Averaging across the categories in Figure 3-A1 revealed that project directors expressed higher levels of overall commitment and ownership (5.9 on a 7-point scale) than overall satisfaction (4.7, $p<.001$) for their coalition. However, satisfaction with the coalitions has increased over time (from an average of 4.0 in 1996 to 4.7 in 2000, $p<.001$).

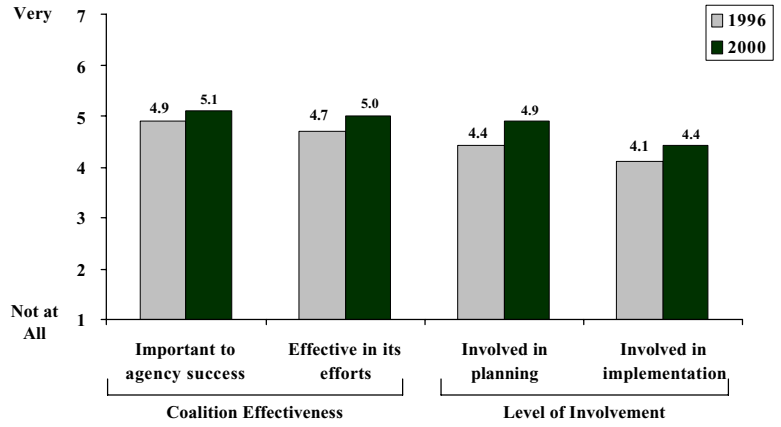
Figure 3-A1
Project Directors' Opinions About their Coalition*



* Not measured in 1998.
Source: Project Directors' Survey, 1996 and 2000.

As shown in Figure 3-A2, project directors rated their coalition as moderately important to the success of their agency and moderately effective in furthering tobacco control objectives, with slightly higher ratings in 2000 than in 1996. They reported that coalitions had significantly increased their involvement in planning activities between 1996 and 2000 (from 4.4 to 4.9, $p<.05$). Urban coalitions were rated as more involved in planning tobacco control activities than rural coalitions (average of 5.3 vs. 4.3, $p<.05$). Urban-based coalitions were also more involved in the implementation of these activities (4.9 vs. 3.9 $p<.05$).[3] Overall, the results suggest that the role played by coalitions in local TCPs is becoming increasingly important to achieving tobacco control objectives.

Figure 3-A2
Perceived Coalition Effectiveness and Involvement in Tobacco Control*

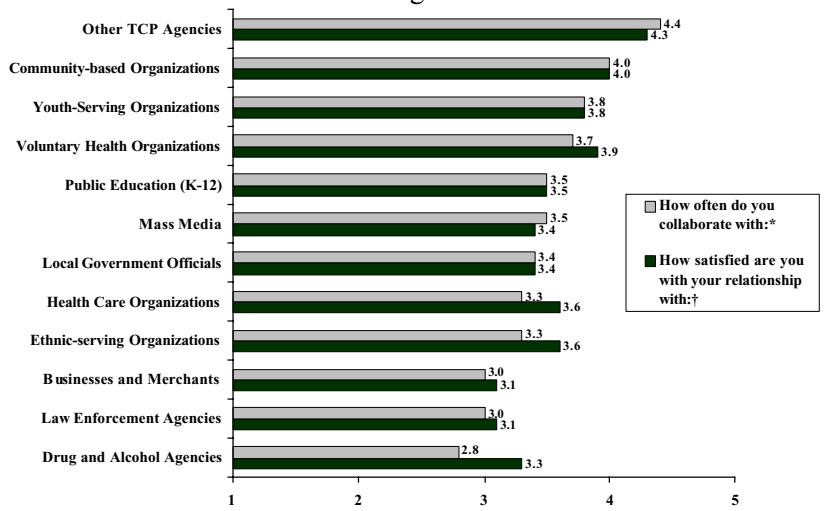


* Not measured in 1998.
Source: Project Directors' Survey, 1996 and 2000.

Collaboration with Other Agencies

Among the various community-based organizations shown in Figure 3-A3, local TCPs collaborated most often with other tobacco control agencies and community-based organizations in 2000.[4] Agencies collaborated least with businesses, law enforcement agencies, and drug and alcohol agencies. In general, the more that local TCPs collaborated with a particular type of organization, the more they were satisfied with that relationship. Project directors reported high levels of satisfaction about their collaborative efforts with other TCP agencies, local community-based organizations, youth-serving organizations, and voluntary health organizations.

Figure 3-A3
TCP Local Agencies' Average Level of Reported Collaboration with Other Organizations



* Measured on a 5-point scale (1="Never", 5="Very Often");
† Measured on a 5-point scale (1="Not at All Satisfied", 5="Very Satisfied").
Source: Project Directors' Survey, 2000.

Urban agencies were more likely than rural agencies to collaborate and be satisfied with their relationship with community-based organizations, youth-serving organizations, and ethnic-serving organizations (p's<.01). This could be attributed, in part, to the greater number of local TCPs present in counties with larger populations, allowing for more collaborative opportunities. In addition, however, rural agencies were more likely to see lack of support from community members and community leaders as barriers to achieving their tobacco control objectives (means = 4.4 and 4.6 on a 7-point scale) than urban agencies (means = 3.2 and 3.5, p's<.01).

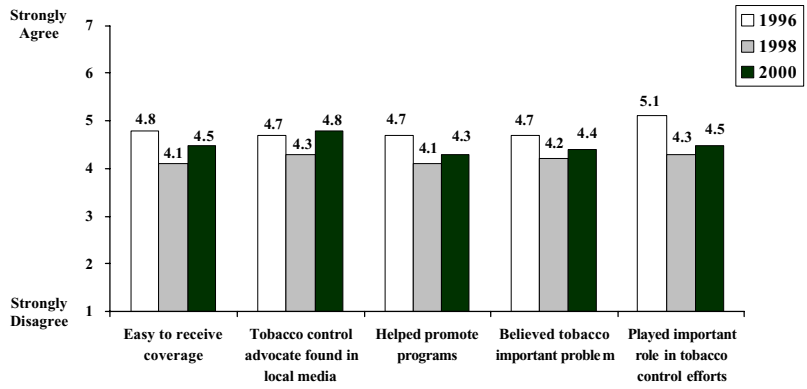
Local Media Relationships

Local media can also play an important role for TCPs by keeping tobacco issues in the forefront of the public's eye, promoting local TCP events, and increasing public support for tobacco control goals. The Independent Evaluation measured whether project directors thought local media supported their efforts and how much media coverage they had received.

Support from Local Media

At each evaluation period, agencies generally reported a moderate level of support from local media as measured by the five items shown in Figure 3-A4 (range of means 4.1 to 5.1 on a 7-point scale). Ratings of support remained fairly constant across the three evaluation periods. There was a significant shift downward in project directors' perceptions of media support from 1996 to 1998, but this perception of less support was not maintained in 1996 to 2000 comparisons. Congruent with these findings, results indicated there was a significant increase between 1996 and 2000 in project directors' belief that a lack of local media support was a barrier to achieving their tobacco control objectives (from 2.9 to 3.7 on a 7-point scale, p<.001; data not shown in figure).

Figure 3-A4
Support from Local Media



Source: Project Directors' Survey, 1996, 1998, and 2000.

Amount of Media Coverage

Local TCP project directors reported how often they had received media coverage from six types of media channels in the past 12 months (7-point scale ranging from "never" to "very often"). The overall mean for having received coverage via traditional mass media (TV, radio, newspaper) was 3.9, indicating a moderate amount of coverage. For all other channels (outdoor ads, media sponsorship of local TCP activities, and magazine ads), the mean was 2.3. There were no differences between rural and urban areas in the amount of coverage received from television, radio, or newspapers.

Overall, these data indicate that there is room to increase local media support for, and coverage of local tobacco control efforts.

Chapter Overview

In the remainder of this chapter we present more in-depth information about the local TCPs, describe the level of public exposure to these programs, and present data on program effectiveness in the areas of policy, enforcement, and the behaviors and opinions of adults and youth. We also examine changes in tobacco-related social norms over the three evaluation periods.

We continue to explore differences between urban and rural settings as we have above. Examining these differences is important because the issues and best strategies for conducting TCP often differ greatly for urban and rural settings. For example, rural areas have a greater interest in addressing

smokeless tobacco use since prevalence is much higher there than in urban areas. Urban areas may have greater concerns with issues of diversity. Therefore, throughout this chapter, important differences between urban and rural settings in 2000 are noted.

B. COUNTERING PRO-TOBACCO INFLUENCES (CPTI)

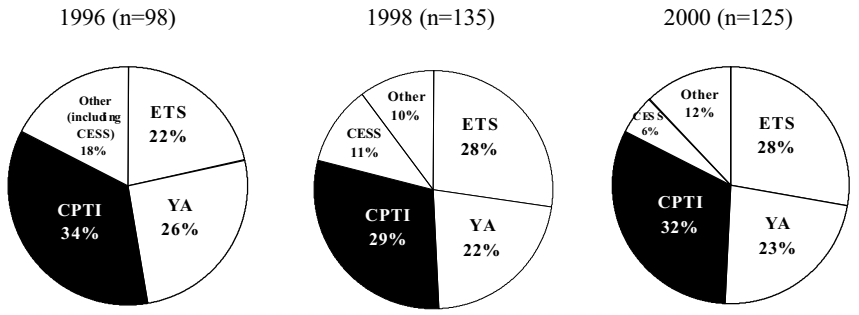
The Program and Its Effectiveness

Local CPTI Program Efforts[1]

Overall Effort

CPTI is one of the primary strategies used by the California Tobacco Control Program (TCP) to challenge the legitimacy of the tobacco industry and its tactics, and to challenge the public's perception that tobacco products are a normal part of everyday living. Of the California TCP priority areas, CPTI activities constituted the highest percentage of local TCP effort, accounting for nearly one-third of total efforts during each evaluation period (see Figure 3-B1).

Figure 3-B1
Percent of Local TCP Effort Spent in the CPTI Priority Area
(Due to rounding, percentages may not add up to 100%)



Source: Progress Report Activity Tracking Data, 1996; Project Directors' Survey, 1998 and 2000.
CESS: Cessation

Types of Activities

CPTI activities have a broad scope and primarily seek change at the community, rather than individual level (e.g., reducing positive portrayals of tobacco use in Hollywood movies). Table 3-B1 illustrates the different types of CPTI activities in which local TCPs engaged during the 2000 evaluation period, and the amount of local TCP effort allotted to each activity type. Activities are ordered from most to least amount of overall effort.

Table 3-B1
Percent of Local TCP Effort Spent
on Specific CPTI Activities

Activities	Percent of Overall Effort	Percent of CPTI Efforts
Implement a Counter-Advertising Campaign	5.2%	16.5%
Reduce Tobacco Sponsorship of Sporting/Community Events	5.2%	16.4%
Reduce Tobacco Advertising in Stores	4.0%	12.6%
Pass or Strengthen Existing Local Ordinances	3.6%	11.2%
Reduce Tobacco Use in Movies and on Television	2.8%	8.9%
Monitor Tobacco Industry Marketing Activities	2.5%	7.8%
Other CPTI Activities	8.4%	26.6%
Overall Effort on CPTI Activities	31.7%	100.0%

Source: Project Directors' Survey, 2000.

Counter-Advertising Campaigns. On average, local TCPs put 5.2 percent of their effort (16.5 percent of CPTI effort) toward developing and implementing counter-advertising campaigns. These campaigns were designed to "deglamorize" tobacco use and educate individuals about the dangers of smoking. Most of these local programs focused on youth, and many employed youth in the development of the media messages. Agencies involved youth in poster contests, mural painting, and logo design contests. The TCPs used various types of media to communicate the anti-tobacco message including billboards, television, and radio.

Sponsorship. On average, 5.2 percent of local TCP effort went into sponsorship activities (16.4 percent of CPTI effort). A statewide initiative dubbed Project Sponsorship Mission: Avoid Reliance on Tobacco (SMART) Money sought to eliminate or prevent tobacco industry sponsorship, donations, and signage from events and organizations in local communities (Flynn, 2000). Project SMART Money provided local TCPs with training and materials to help them encourage event organizers, local chambers of commerce, and private organizations to prohibit tobacco advertising and sponsorships. During the evaluation period, approximately 49 TCP-funded agencies worked on Project SMART Money activities (Stanford Center for Research in Disease Prevention, 2000).

Staff who worked on Project SMART Money activities reported using a variety of strategies to decrease tobacco sponsorship. Among the agencies involved with Project SMART Money, 62 percent developed policies to eliminate tobacco sponsorship, 46 percent encouraged alternative sponsorships, and 14 percent developed contract language in lease agreements that restricted tobacco sponsorships.

More than one-fourth of local TCPs (26 percent) were involved in a statewide effort to monitor tobacco sponsorship at community and sporting events to ensure compliance with the Master Settlement Agreement (MSA). The MSA was a $206 billion deal to settle pending lawsuits against the tobacco industry. It was signed in November 1998, by the attorney's general of 46 states, four U.S. territories and the District of Columbia, and the nation's five largest tobacco companies. Local TCPs observed hundreds of local events and documented the presence or absence of tobacco advertising and sponsorship, information that was forwarded to the state Attorney General's Office.

Advertising in Stores. On average, local TCPs put 4 percent of their total effort (12.6 percent of CPTI effort) toward reducing the amount of tobacco advertising in stores. Often coupled with efforts to reduce tobacco sales to minors, local TCPs encouraged store owners to voluntarily reduce the amount of tobacco advertising present in their stores. In many cases, the focus was on key youth-targeted advertising, such as advertising placed below a height of three feet or near candy.

Local Ordinance Work. On average, 3.6 percent of local TCP efforts (11.2 percent of CPTI effort) went toward passing and strengthening local ordinances to restrict advertising and promotion. MSA provisions, which include comprehensive restrictions on tobacco advertising and promotions, are more restrictive than many existing local ordinances. For example, the MSA prohibited tobacco billboards and transit ads, two policy areas that local TCPs had worked on prior to November 1998. After that time, most new local tobacco advertising ordinances focused on reducing advertising at the retail outlet. Many of these local ordinances prohibited in-store advertising that was visible to the street and/or any tobacco advertising within a certain proximity of schools or playgrounds.

Tobacco in Movies and Television. On average, local TCPs put 2.8 percent of their effort (8.9 percent of CPTI effort) toward reducing the use of tobacco in movies and television. The American Lung Association of Sacramento-Emigrant Trails "Thumbs Up! Thumbs Down!" project conducted an annual review of the portrayal of tobacco use in movies and television shows. Annual pre-Oscar "Hackademy Awards" and pre-Emmy "Phlemmy's" involved youth to create publicity around the problem. Other local activities included educating people in the entertainment industry, educating youth about the deceptive depictions of tobacco in movies and television, and disseminating anti-tobacco messages to be shown before movies in local theaters.

Monitor Tobacco Industry Marketing Activities. Local TCPs were also involved in monitoring tobacco marketing activities (2.5 percent of overall effort, 7.8 percent of CPTI effort) to get a better understanding of the industry's marketing and public relations tactics. Types of in-store advertising practices were examined with store observations. Store advertising was analyzed to determine if the industry was targeting specific ethnic

neighborhoods or stores near schools or parks. Some local TCPs conducted research on point-of-purchase (in store) marketing strategies such as slotting fees for prime placement of tobacco products in the retail outlets.

Other CPTI Activities. A substantial portion of local TCP effort went towards CPTI activities that were not described in the categories above (8.4 percent overall effort; 26.6 percent of CPTI effort). These efforts included such activities as general anti-tobacco education campaigns; youth media advocacy; promoting tobacco-free communities; reducing tobacco advertising in non-retail venues (i.e., outdoor advertising, print advertising); discouraging tobacco industry "Bar Night" sponsorships; reducing the amount of tobacco gear owned by youth and adults; and various other activities.

TCP Activities and Type of Agency

Table 3-B2 illustrates differences between three types of local TCP agencies (Local Lead Agencies (LLAs), Regions, and Grantees) in the proportion of total program effort they devoted to specific CPTI activities.[2] Overall, grantees put more of their total effort into CPTI activities (38.9 percent) than regions (33.1 percent) or LLAs (24.3 percent). Grantees put the largest portion of their total effort into the "other CPTI activities" category (10.2 percent), which was substantially more than the effort of regions (7.6 percent) and LLAs (6.5 percent). Regions put 10.2 percent of their total effort into reducing tobacco sponsorship of sporting/community events, compared to 6.4 percent for grantees and 3.1 percent for LLAs. LLAs were most likely to put their efforts into implementing a counter-advertising campaign (5.8 percent). None of the three agency types put much effort into reducing the prevalence of tobacco gear.

Table 3-B2
Percent of Local TCP Effort Devoted to Specific CPTI Activities, by Agency Type

Activities	LLAs n=57	Regions n=10	Grantees n=57	All Agencies n=124
Implement a Counter-Advertising Campaign	5.8%	2.9%	5.0%	5.2%
Reduce Tobacco Sponsorship of Sporting/ Community Events	3.1%	10.2%	6.4%	5.2%
Reduce Tobacco Advertising in Stores	3.3%	3.6%	4.8%	4.0%
Pass or Strengthen Existing Local Ordinances	3.1%	4.0%	4.0%	3.6%
Reduce Tobacco Use in Movies and Television	1.1%	3.0%	4.5%	2.8%
Monitor Tobacco Industry Marketing Activities	1.1%	1.8%	4.0%	2.5%
Other CPTI Activities	6.8%	7.6%	10.2%	8.4%
Overall Effort on CPTI Activities	24.3%	33.1%	38.9%	31.7%

Source: Project Directors' Survey, 2000.

Public Awareness of CPTI Activities

Adults and Youth

In 2000, 63 percent of adults were aware of at least one local TCP activity to counter the tobacco industry. As shown in Table 3-B3, over one-third of adults (38 percent) and 8 percent of 10th-graders were aware of two or more local CPTI activities. The percentage of adults and 10th-graders that were aware of local CPTI activities varied by specific activity. Overall, more adults were aware of CPTI activities (ranging from 35 percent to 44 percent), as compared to 10th-graders (ranging from 13 percent to 24 percent).[3]

- Forty-four percent of adults and 13 percent of 10th-graders were aware of efforts to reduce tobacco sponsorship of sporting and community events.
- Thirty-seven percent of adults and 24 percent of 10th-graders were aware of efforts to pass local laws to reduce tobacco advertising on sidewalks or store windows.
- Thirty-five percent of adults were aware of efforts to make cigars seem less glamorous and cool.

Table 3-B3
Awareness of Local Community CPTI Activities

CPTI Activity	10th-graders	Adults
Reduce tobacco company funding of community events (such as fairs, art shows, and sporting events)	13%	44%
Reduce the amount of tobacco advertising on store windows or sidewalks	24%	37%
Make cigars seem less glamorous and "cool"	n/a	35%
Aware of two or more activities	8%	38%

Note: n/a = not asked of respondent type.
Source: School-based Youth Survey, 2000 and Adult Telephone Survey, 2000.

Key Opinion Leaders

Key opinion leaders were asked whether they were aware of, or participated in programs in their county to reduce the presence of tobacco advertising and marketing. Over two-thirds of key opinion leaders (69 percent) had heard of at least one CPTI program activity, and almost all (94 percent) had seen or heard something about the MSA. About one-third (31 percent) had participated in a related CPTI activity and 9 percent had participated in their county's

Children and Families First Commission, which was funded by an additional 50 cent tax on tobacco products [Proposition (Prop) 10].[4]

Program Effectiveness: Relationships Between Local TCP Efforts and CPTI Outcomes

Public Policy

CPTI public policy data for all 471 city and 58 county jurisdictions in California were examined to determine which policies had passed during the time period assessed by the Independent Evaluation.[5] Between July 1995 and December 1999, jurisdictions within 10 of the 58 counties passed new and amended CPTI-related ordinances.

- **New CPTI policies were passed in 32 percent of counties where LLAs reported CPTI-related policy initiation activity, compared to the 10 percent of counties where there was no reported policy initiation activity.**
- **CPTI-related policy passage was four times more likely in counties where there was local program activity to initiate new CPTI policies than in counties where there was no such activity (OR = 4.0; 95 percent CI 1.00, 16.65).**

These data suggest that local TCP policy initiation activity is strongly related to CPTI policy passage.

Adult and Youth Responses to Pro-Tobacco Influences

Adults. Many CPTI activities are intended to create less support for tobacco use and the tobacco industry. We examined the extent to which adults' perceptions of tobacco advertising and marketing have become more negative over time in relation to the amount of CPTI activity in their communities. In 2000, the amount of effort that counties put into their CPTI programs was associated with changes between 1998 and 2000, in a number of CPTI outcomes for adults.[6]

Between 1998 and 2000, more CPTI effort was associated with:

- An increase in support for reducing the amount of smoking depicted in TV programs and movies (correlation = .23; n.s.).
- A decrease in the percentage of adults who thought tobacco companies were honest with the public (correlation = -.35; n.s.).

Between 1998 and 2000, more TCP effort to restrict tobacco sponsorships at local events within counties was associated with:

- An increase in support for a ban on tobacco sponsorships (correlation = .48; $p<.05$).
- A decrease in the percentage of adults who saw tobacco advertising "sometimes" or "a lot" at sporting events, fairs, or community events (correlation = -.32, n.s.).

More TCP effort to reduce tobacco gear ownership was marginally associated with fewer adults reporting that they owned a tobacco promotional item (correlation = -.20, n.s.).

Between 1998 and 2000, more TCP effort to restrict tobacco advertising in stores within counties was marginally associated with:

- A decrease in support for an advertising ban in stores (correlation = -.24, n.s.).
- An increase in the percentage of adults seeing tobacco advertisements in stores (correlation = .28, n.s.).

Youth. Compared to adults, significant relationships between TCP efforts and CPTI outcomes for 8th- and 10th-grade youth at the county level were fewer. Between 1998 and 2000, more TCP effort to counter tobacco-advertising campaigns was associated with an increase in the percentage of:

- 8th- and 10th-graders who thought tobacco advertising/marketing was a problem in their community (correlations = .23 and .22, n.s.).
- 8th-graders who reported that they talk about the problem of tobacco advertising/marketing with others (correlation = .46, p = .06).
- 8th- and 10th-graders who thought that the tobacco companies would not stop selling tobacco even if they knew it hurt people (correlations = .35 and .26, n.s.).
- 8th- and 10th-graders who thought that tobacco promotional items should be prohibited at school (correlations = .22 and .42, p's = n.s. and .09).

More TCP effort to reduce tobacco gear ownership was associated with more 10th-graders reporting that they see and own promotional items (correlations = .38 and .39, n.s.), and more 8th- and 10th-graders reporting that they want promotional items (correlations = .43 and .34, p's = n.s. and .08).

Time Trends in Community-Level CPTI Outcomes

CPTI Policy Passage

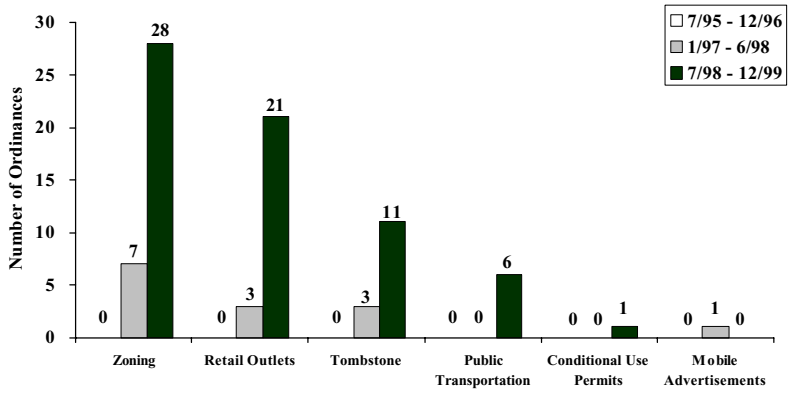
During the Independent Evaluation, between July 1995 and December 1999, a total of 38 city and county jurisdictions encompassing 26.3 percent of the California population passed CPTI policies.[7] These 38 jurisdictions were contained within the following 10 counties:

Alameda (Alameda, Berkeley, Oakland)
Contra Costa (Antioch, Contra Costa County, Danville, El Cerrito, Lafayette, Pinole, Pittsburg, Pleasant Hill, Richmond, San Ramon, Walnut Creek)
Kings (Hanford)
Los Angeles (Carson, Compton, Covina, Hawthorne, Inglewood, La Puente, Lawndale, Los Angeles, Long Beach, Los Angeles County, Lynwood, San Fernando, West Hollywood)
Marin (San Rafael)
San Diego (Oceanside, San Diego, San Marcos)

San Francisco (San Francisco)
Santa Cruz (Santa Cruz, Santa Cruz County, Scotts Valley)
Tulare (Tulare)
Ventura (Moorpark)

These jurisdictions passed policies that included 81 specific new and amended ordinance provisions. Figure 3-B2 shows the number of specific ordinances by type across the three evaluation periods. The most frequent types of ordinances were advertising restrictions related to zoning location (n = 35), retail outlets (n = 24), and tombstone advertising (n = 14). Less common types of advertising restrictions were those related to public transportation (n = 6), conditional use permits (n = 1), and mobile advertisements (n = 1).

Figure 3-B2
Specific Types of Local CPTI Ordinance Provisions Passed in Each Evaluation Period



Note: Tombstone advertising refers to tobacco advertising restricted to black and white text.
Source: American Nonsmokers' Rights Foundation, 2000; In-house review of local ordinance documents, 2000.

Congruent with the local TCP emphasis on CPTI during the late 1990s, the number of CPTI policies passed to restrict tobacco advertising increased significantly between the first two evaluation periods (1996 and 1998) and the third period (2000) ($p<.01$). **During the third evaluation period, 66 advertising restriction provisions were passed compared to none during the first evaluation period and 15 during the second.**

Success story. Based on the TCP project directors surveys, **Los Angeles** and **Contra Costa** counties devoted the greatest percentage of their total program efforts to passing or strengthening local CPTI policies (11 percent and 30 percent, respectively). During the Independent Evaluation period, Los Angeles County and 11 city jurisdictions within the county passed local CPTI policies covering 51 percent of the population. In Contra Costa, both the county and 10 of its cities passed similar policies covering 60 percent of the

population. Most of these policies contain provisions that are stricter than state or federal level policies (e.g., advertising restrictions based on zoning).

Table A-1 in the appendix provides more details on the type of CPTI ordinance activity by jurisdiction.

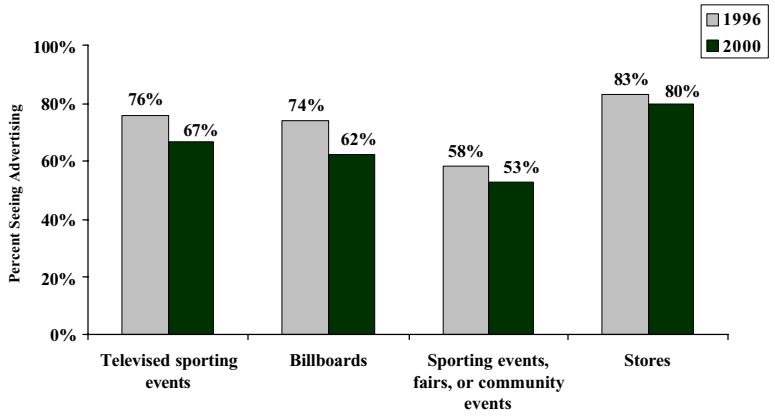
Time Trends in Individual-Level CPTI Outcomes

Public Exposure to Tobacco Industry Marketing and Advertising

In 2000, tobacco marketing and advertising remained prevalent in communities. This is not surprising since the tobacco industry spends more than $5 billion in the U.S. each year for tobacco marketing and advertising (Prentice, 1999). However, the results of the Independent Evaluation suggest that California adults perceived there was less advertising in 2000 than in 1996. **The percentage of adults who reported seeing tobacco advertising "sometimes" or "a lot" significantly decreased** ($p<.05$) **between 1996 and 2000 for** (see Figure 3-B3):

- Televised sporting events (from 76 percent to 67 percent)
- Billboards (from 74 percent to 62 percent)
- Sporting events, fairs, or community events (from 58 percent to 53 percent)
- Stores (from 83 percent to 80 percent)

Figure 3-B3
Percentage of Adults Seeing Significantly Less
Tobacco Marketing and Advertising



Source: Adult Telephone Survey, 1996 and 2000.

Youth were asked about their observation of tobacco advertising and marketing in a number of these same venues. The percentage of 10th-graders who saw tobacco advertisements on

billboards also significantly decreased, from 80 percent in 1996 to 66 percent in 2000 ($p<.01$). This finding is not surprising since tobacco advertising on billboards was banned as part of the MSA in 1998.

According to the 1999 Industry Report (Promo Magazine, 1999), when tobacco advertising on billboards was banned, the amount spent on tobacco point-of-purchase advertising and marketing in stores increased. Youth appear to have noticed these changes.

- The percentage of 10th-graders who saw tobacco advertising and marketing in stores increased from 74 percent in 1996 to 83 percent in 2000 ($p = .10$).
- 8th-graders reported a similar increase, from 69 percent in 1996 to 77 percent in 2000 ($p = .04$).[8]

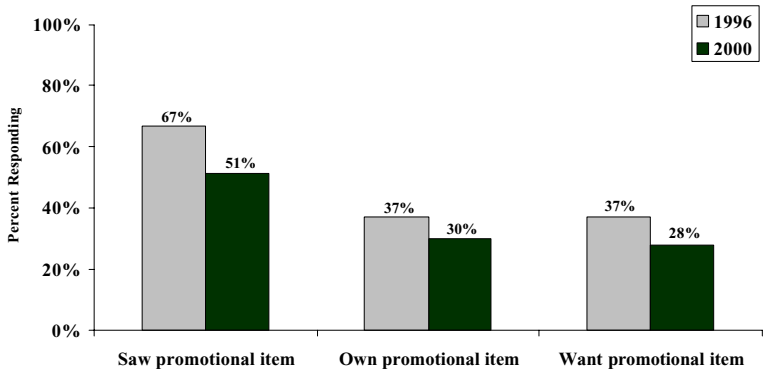
Similar to adults, about half of 10th-graders (58 percent) reported that they saw tobacco advertising and marketing at community events. This percentage did not change over time. In 1998, Philip Morris was the largest North American sponsor of events with more than $145 million in commitments (Promo Magazine, 1999).

Tobacco Industry Promotional Items

In 2000, about twice as many youth reported owning a tobacco promotional item as compared to adults (30 percent of 10th-graders, 39 percent of 8th-graders, and 17 percent of adults). **From 1996 to 2000, there was a significant decrease in the percentage of 10th-graders who reported that they saw, owned, or wanted tobacco promotional items** (See Figure 3-B4). The percentage of 10th-graders who:

- Saw other young people wearing or using tobacco promotional items (e.g., t-shirts, hats, gym bags) decreased from 67 percent to 51 percent ($p<.01$).
- Owned or have owned a promotional item decreased from 37 percent to 30 percent ($p=.02$).[9]
- Thought they would ever use or wear a tobacco promotional item decreased from 37 percent to 28 percent ($p<.01$).

Figure 3-B4
Percentage of 10th-Graders Who
Saw, Own, or Want Tobacco Promotional Items



Source: School-based Youth Survey, 1996 and 2000.

The percentage of 8th-graders who thought that they would ever use or wear a tobacco promotional item also decreased (41 percent in 1996 to 30 percent in 2000, p<.01).[10]

The percentage of adults who received information from tobacco companies in the mail decreased significantly from 41 percent in 1996 to 33 percent in 2000 (p<.05). A significant decrease occurred for both smokers and non-smokers. It is unclear why this decrease occurred since this was not included as part of the MSA and does not appear to be a focus of TCP efforts.

From 1996 to 2000, the percentage of youth who said that they received something from a tobacco company in the mail decreased from 32 percent to 24 percent for 10th-graders (p<.01) and from 33 percent to 28 percent for 8th-graders (p=.02). Table 3-B4 shows the types of items youth received when asked in 2000.

Table 3-B4
Percent of Youth Who Report Receiving Specific Items from a Tobacco Company

Type of item received from tobacco company	10th-graders	8th-graders
Cigarette(s)	6%	7%
Survey	6%	8%
Coupon	9%	9%
Gift	5%	6%
Product catalog	14%	13%

Note: Items do not add up to 100% because the "none of these" category is not included and youth could choose more than one response.
Source: School-based Youth Survey, 2000.

Attitudes and Policy Support

The local TCPs seek to counter pro-tobacco influences by increasing the public's recognition that tobacco advertising is deceitful and detrimental to the health of California residents. They also seek to change the social and political climate toward non-acceptance of the pervasive presence of tobacco. This is sometimes a difficult message to "sell," especially since restrictions on advertising can often be portrayed as contrary to the first amendment right to free speech. The Independent Evaluation has monitored the public's views about tobacco advertising and marketing in their communities, their perceptions of the tobacco industry, and their support for policies to restrict advertising and marketing. We also have collected this information from key community opinion leaders because they are likely to be more sensitive to this issue than the general public.

Concern About Tobacco Advertising

Most of the public does not think that the amount of tobacco advertising and marketing in their community is a problem.

- Only one-third of key opinion leaders (38 percent) and one-half of adults thought tobacco advertising and marketing was a serious problem in their community.[11]
- Over time, fewer youth thought tobacco advertising and marketing was a problem in their community. From 1996 to 2000, the percentage of 8th-graders who thought it was a serious problem decreased from 47 percent to 42 percent ($p = .03$); for 10th-graders it decreased from 42 percent to 36 percent ($p = .02$).

Key opinion leaders reported that they spoke with others about the problem of tobacco advertising and marketing more frequently than did other community residents. However, for both opinion leaders and adults these percentages decreased over time.

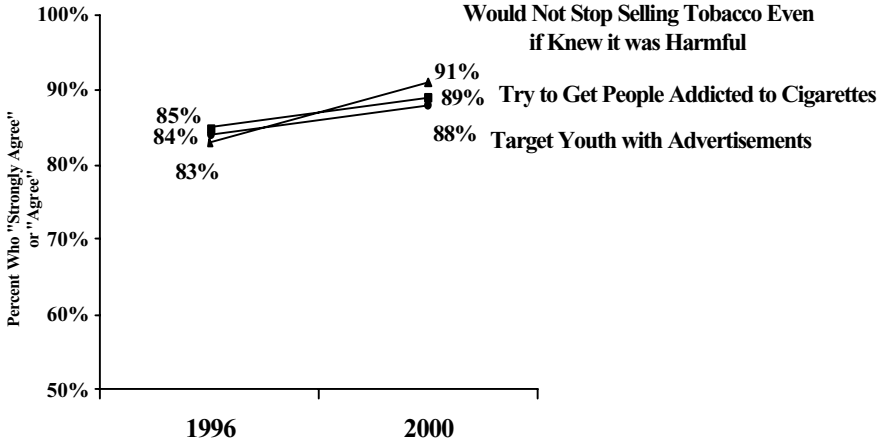
- Fifty-nine percent of key opinion leaders reported talking with others about the problem of tobacco advertising and marketing in 2000 as compared to 65 percent in 1998 ($p<.05$).
- Twenty-eight percent of adults reported talking with others about the problem of tobacco advertising and marketing in 2000 as compared to 35 percent in 1998 ($p<.05$).
- Only 18 percent and 19 percent of 10^{th}-graders and 8^{th}-graders, respectively, talked with others about the problem of tobacco advertising and marketing.

Beliefs about the Tobacco Industry

An increasing proportion of the public is critical of the tobacco industry's practices.

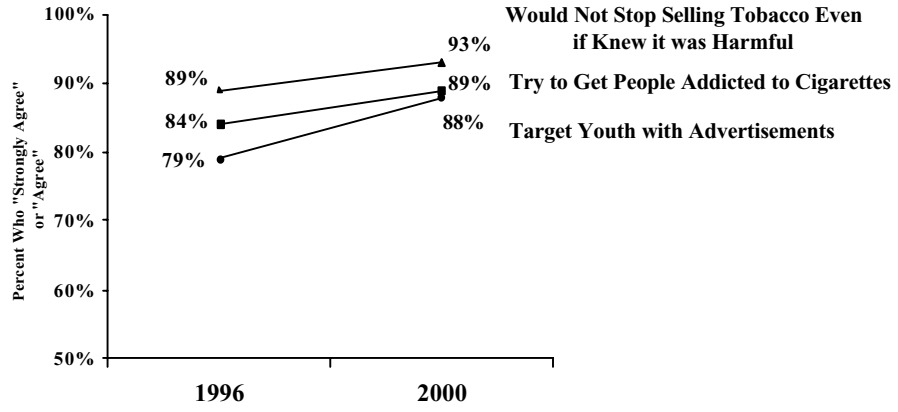
- The percentage of adults who think that tobacco companies are generally dishonest in the information that they give the public about their products significantly increased from 80 percent in 1998 to 83 percent in 2000 ($p<.05$).[12]
- As shown in Figures 3-B5 and 3-B6, the percentage of 8^{th}- and 10^{th}-grade youth who think that tobacco companies target youth significantly increased from 1996 to 2000 ($p's<.05$).
- Similarly, the percentage of youth who think tobacco companies try to get people addicted to tobacco and would not stop selling tobacco even if they knew it was harmful both increased, and significantly increased for 8^{th}-grade youth from 1996 to 2000 ($p's<.05$).

Figure 3-B5
8th-Grade Youth Attitudes about
the Tobacco Industry



Source: School-based Youth Survey, 1996 and 2000.

Figure 3-B6
10th-Grade Youth Attitudes about
the Tobacco Industry



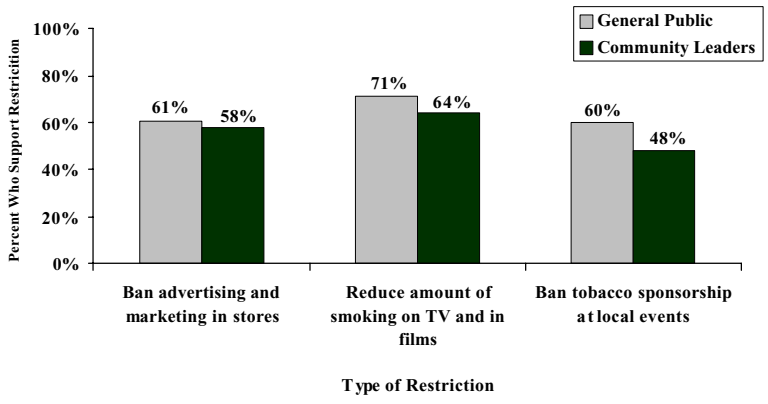
Source: School-based Youth Survey, 1996 and 2000.

Support for Tobacco Advertising Restrictions

The general public supports restrictions on tobacco advertising and marketing; so do key community opinion leaders.

- In 2000, 62 percent of adults supported a ban on tobacco advertisements in stores and 72 percent supported reductions on the amount of smoking depicted in TV programs and films. Support for these restrictions has remained high since adults were first asked about them (61 percent supported store bans in 1996 and 71 percent supported restrictions on smoking in TV and films in 1998).
- Throughout the evaluation period, the majority of key opinion leaders supported a ban on tobacco advertisements in stores (58 percent in 1996 and 55 percent in 2000).
- In 2000, about two-thirds (64 percent) of opinion leaders believed that something should be done to reduce the amount of smoking shown on television programs and in films, down from 73 percent in 1998 ($p<.05$).

Figure 3-B7
Support for Restrictions on Tobacco Advertising and Marketing



Source: Adult Telephone Survey, 2000 and Opinion Leader Survey, 2000.

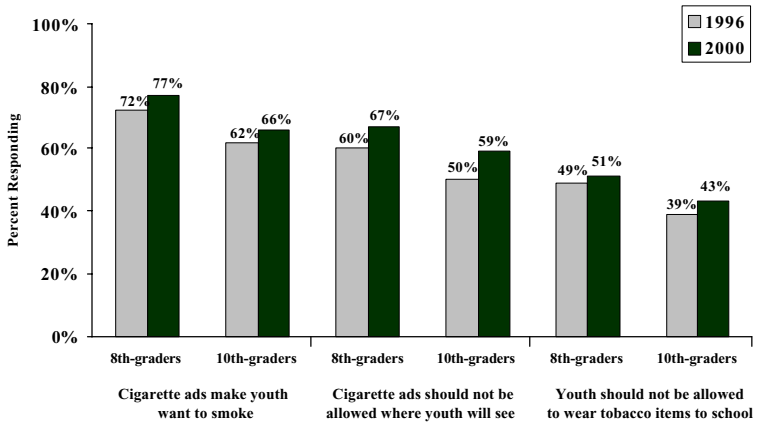
Over time, an increasing percentage of youth reported they believe that tobacco advertising and marketing influences them, and supported further restrictions on advertising and marketing (See Figure 3-B8). In 2000:

- When asked whether cigarette advertisements make young people want to start smoking, 66 percent of 10th-graders and 77 percent of 8th-graders agreed, an increase from 62 percent and 72 percent, respectively, in 1996 ($p<.01$).
- 59 percent of 10th-graders and 67 percent of 8th-graders thought that advertising should not be allowed where youth will see it (e.g., at sports or community events, on

billboards, and in magazines read by youth), an increase from 50 percent and 60 percent, respectively, in 1996 ($p<.05$).

- Forty-three percent of 10th-graders and 51 percent of 8th-graders thought youth should not be allowed to wear or carry tobacco promotional items at school, an increase from 39 percent ($p = .05$) and 49 percent (n.s.), respectively, in 1996.

Figure 3-B8
Percentage of 8th- and 10th-Grade Youth Who Believe that Tobacco Marketing Influences Them



Source: School-based Youth Survey, 1996 and 2000.

Key opinion leaders voiced strong support for policies to restrict advertising and marketing in venues aimed at young people. In 2000, several new questions were asked of key opinion leaders. The data revealed that:

- Seventy-nine percent supported a ban on tobacco advertising in entertainment newspapers and magazines that target youth.
- Sixty-nine percent supported a ban on tobacco industry promotional items at schools (up insignificantly from 67 percent in 1996).
- Fifty-six percent thought that tobacco companies should not be allowed to sponsor college fraternity or sorority events, or events by college-governing bodies.
- Forty-six percent thought the government should regulate tobacco company presence on the Internet.

Support for Restrictions on Tobacco Sponsorship of Events

The general public believes that tobacco industry sponsorship of community events should be restricted; key opinion leaders lag behind (see Figure 3-B7)**.**

- Adults support for a ban on tobacco sponsorship of local events significantly increased from 56 percent in 1996 to 60 percent in 2000 ($p < .05$).
- About half of opinion leaders (48 percent) supported a ban of tobacco sponsorship at local events, a insignificant decrease from 53 percent in 1996.

Success story. About half of the TCS-funded agencies involved in **Project SMART Money** (59 percent) worked with local organizations to encourage them to adopt an organizational policy denying tobacco sponsorship monies and/or banning tobacco sponsorship on all events held on their property. These agencies worked with an average of eight organizations to pass over 80 voluntary policies to prohibit tobacco advertising and the acceptance tobacco money. Some groups adopted policies for their organization (e.g., chambers of commerce) and some adopted policies governing specific events (e.g., at fairs, rodeos, raceways and other sporting events).

In addition, over 70 local TCP staff and volunteers attended 65 of the 300 tobacco-sponsored events in California during 1999 to document the tobacco industry marketing tactics and potential violations, and to identify industry strategies to circumvent the provisions of the MSA. Information collected at these events provided the State Attorney General's office with evidence to challenge the marketing practices of tobacco companies, including Philip Morris, RJ Reynolds, and U.S.S.T (Stanford Center for Research in Disease Prevention, 2000).

A growing number of key opinion leaders in California also support keeping certain types of pro-tobacco influences out of bars and nightclubs.[13]

- In 2000, 57 percent of leaders did not favor allowing bars to host special cigarette or cigar nights, a significant increase from 50 percent in 1998 ($p<.05$).
- However, only 32 percent of leaders did not favor allowing the tobacco industry to host events in bars or nightclubs in general.[14]

Forty-eight percent of key opinion leaders thought that CPTI polices are best made at the city or county level rather than the state or national level; this is an increase from 42 percent in 1998 ($p=.06$).

Support for Tobacco Control Funding

Key opinion leaders also support spending government funds on tobacco control activities.

- For instance, 71 percent of leaders thought that at least half of the annual payments California receives from the national tobacco settlement should be spent on reducing tobacco use.[15]
- When asked about funds generated from the passage of Prop 10 California Children and Families First Act, opinion leaders, on average, said that at least half should be spent on local tobacco control programs for children and families.[16]

C. REDUCING EXPOSURE TO ENVIRONMENTAL TOBACCO SMOKE (ETS)

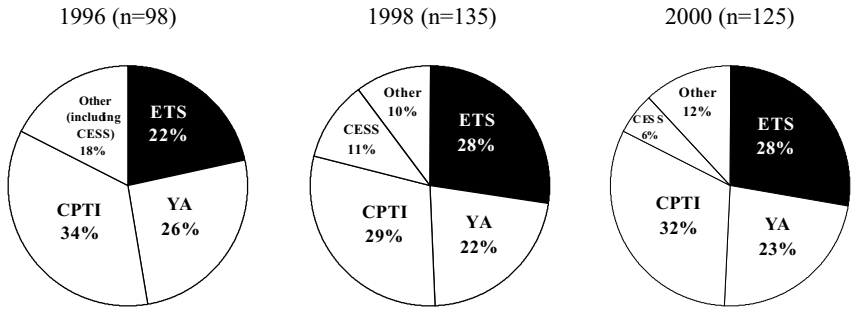
The Program and Its Effectiveness

Local ETS Program Efforts[1]

Overall ETS Effort

Since the beginning of the Independent Evaluation, local TCPs throughout California have made reducing exposure to ETS a major area of focus. The average percent of overall local agency effort allotted to ETS activities grew from 22 percent in 1996 to 28 percent in both 1998 and 2000 (see Figure 3-C1).

Figure 3-C1
Percent of Local TCP Effort Spent in the ETS Priority Area
(Due to rounding, percentages may not add up to 100%)



Source: Progress Report Activity Tracking Data, 1996; Project Directors' Survey, 1998 and 2000.

Types of ETS Activities

Table 3-C1 illustrates the different types of activities local TCPs conducted to reduce ETS during the 2000 evaluation period. Activities are ordered from most to least amount of overall effort.

Table 3-C2
Percent of Local TCP Effort Spent
on Specific ETS Activities

Activities	Percent of Overall Effort	Percent of ETS Efforts
Promote Smoke-Free Bar Law	8.6%	31.0%
Promote Smoke-Free Homes and Cars	6.8%	24.3%
Encourage Voluntary Outdoor Smoke-Free Policies	4.1%	14.9%
Promote Smoke-Free Restaurant and Workplace Laws	3.9%	13.9%
Pass New or Strengthen Existing Local Ordinances	1.8%	6.5%
Other ETS Activities	2.6%	9.3%
Overall Effort on ETS Activities	27.8%	100.0%

Source: Project Directors' Survey, 2000.
Due to rounding, percentages may not add up to 100%.

Smoke-free bar law. The smoke-free bar law was scheduled for implementation in 1997 as a provision of Assembly Bill (AB) 13/3037, the state clean indoor air law that requires all enclosed places of employment with more than five employees to be smoke free. Even though other provisions of AB 13 were implemented, political opposition delayed implementation of the smoke-free bar law and nearly derailed it. There was considerable opposition to the law in the State Legislature, and some bar owners were very vocal in their opposition to the law, arguing that it would adversely effect their revenues. The smoke-free bars provision of AB 13 was eventually implemented on January 1, 1998. Given the political and social environment surrounding the smoke-free bar law, the California TCP placed a high priority on preparing the way for smooth implementation of the law and promoting high compliance.[2]

As illustrated in Table 3-C2, local TCPs focused 8.6 percent of their total efforts (or 31 percent of ETS effort) toward activities related to the smoke-free bar law. This is a larger percent of effort than was devoted to any other single local TCP activity across all priority areas. Of the TCPs who put effort into promoting the smoke-free bar law, 50 percent worked to educate the public and generate support for the law, 46 percent worked to educate bar

owners, 36 percent worked to train enforcement officials, and 35 percent visited bars to ensure that they were in compliance.

Smoke-free homes and cars. On average, local TCPs put 6.8 percent of their effort (24.3 percent of ETS effort) toward activities promoting smoke-free homes and cars. Many agencies worked with private and public organizations to deliver smoke-free home and car messages. Examples of these partner organizations include Head Start, the Department of Family and Children Services, English as a Second Language classes, churches, temples, fairs, and schools.

A number of agencies (15 percent) worked specifically to establish smoke-free policies in multi-unit housing complexes (e.g., apartments) and group living organizations (e.g., foster homes and senior centers). Since 1991, nine California cities have adopted local ordinances that prohibit smoking in multi-unit dwellings: Arcata, Buellton, Chico, Laguna Hills, Long Beach, Mill Valley, Palmdale, San Ramon, and Santa Cruz.

Voluntary outdoor smoke-free policies. On average, local TCPs put 4.1 percent of their total effort (14.9 percent of ETS effort) toward encouraging or facilitating the adoption of outdoor smoke-free policies by private or public organizations. Many agencies (34 percent) worked to prohibit smoking at community events. This work often went hand-in-hand with efforts to curb the acceptance of tobacco sponsorship. Working with fair boards, event committees, and private organizations, local TCPs facilitated the adoption of dozens of voluntary smoke-free policies throughout the state. They also sought smoke-free policies for public areas such as college campuses (17 percent of TCPs) and amusement parks or zoos (14 percent of TCPs).

Smoke-free restaurant and workplace law. Since 1995, state law has restricted smoking in workplaces with more than five employees, including restaurants. On average, local TCPs put 3.9 percent of their total effort (13.9 percent of ETS effort) toward promoting the "non bar" provisions of the law. Of the TCPs that worked in this area, 33 percent worked to educate the public, 30 percent worked to educate business owners, 19 percent worked to educate and train enforcement agencies, and 10 percent visited restaurants and workplaces to ensure that they were in compliance.

Local ordinance work. On average, local TCPs put only 1.8 percent of their overall effort (6.5 percent of ETS effort) toward passing new or strengthening existing local ordinances to restrict smoking in public places. The fact that the local TCPs devoted little effort to working on local ETS ordinances may be a reflection of the strength and comprehensiveness of the state ETS policy governing smoking in the majority of workplaces, both public and private. Twelve local agencies reported working on ordinances that prohibited smoking in all workplaces regardless of the number of employees, eight agencies reported working on Indian tribal policies, and six agencies worked on ordinances targeting hotel lobbies.

TCP Activities and Type of Agency

Table 3-C3 illustrates differences between the three types of TCP agencies in the proportion of overall effort they devoted to specific ETS activities during the year prior to the survey.[3] In 2000, LLAs reported spending more of their total programmatic efforts on ETS activities (30.3 percent) than regions (25.3 percent) or competitive grantees (25.8 percent). Promoting smoke-free bars and smoke-free homes or cars were the two activities garnering the most attention from all three types of TCP-funded agencies. LLAs put more effort than regions or grantees into promoting the restaurant and workplace provisions of AB 13. This may be due to the greater responsibility some LLAs have to monitor and enforce AB 13, and because they are required under contract to address these issues. Grantees and LLAs put more effort than regions into activities to encourage voluntary smoke-free policies. Since voluntary policy endeavors tend to be more local and site-specific, it may be less appropriate for regions to work in this area.

Table 3-C3
Percent of Local TCP Effort Devoted to Specific ETS Activities by Agency Type

Activities	LLAs n=57	Regions n=10	Grantees n=57	All Agencies n=124
Promote Smoke-Free Bar Law	11.2%	10.2%	5.7%	8.6%
Promote Smoke-Free Homes and Cars	6.3%	5.7%	7.4%	6.8%
Encourage Voluntary Outdoor Smoke-free Policies	3.9%	2.4%	4.7%	4.1%
Promote Smoke-Free Restaurant and Workplace Laws	5.3%	2.8%	2.7%	3.9%
Pass New or Strengthen Existing Local Ordinances	1.3%	1.9%	2.3%	1.8%
Other ETS Activities	2.2%	2.3%	3.0%	2.6%
Overall Effort on ETS Activities	30.3%	25.3%	25.8%	27.8%

Source: Project Directors' Survey, 2000.

Public Awareness of ETS Activities

Compared to youth, adults were much more aware of various local ETS activities in 2000. Overall, 47 percent of 10th-graders, and 87 percent of adults had heard of two or more ETS activities in 2000 (see Table 3-C3).[4]

- Adults were most likely to have heard about efforts to educate the public about the dangers of ETS (80 percent) and efforts to enforce the state policy governing ETS exposure in workplaces, restaurants, and bars (78 percent to 81 percent). They were

less likely to have heard about efforts to restrict smoking in outdoor places (52 percent).

- 10th -graders were most likely to have heard about efforts to enforce AB 13 (67 percent), with less than one-half aware of efforts to educate about ETS and restrict smoking in outdoor places (38 percent and 37 percent respectively).
- 8th -graders were asked only about their awareness of activities to encourage smoking policies for homes and cars. Awareness of these activities was quite low for youth (8th = 21 percent; 10th = 18 percent) and adults (32 percent).

Table 3-C4
Awareness of Local Community ETS Activities

ETS Activity	8th-graders	10th-graders	Adults
Educate about dangers of ETS	n/a	38%	80%
Enforce state indoor workplace smoking policies	n/a	67%	78%
Enforce the smoke-free bar ban	n/a	n/a	81%
Restrict smoking in outdoor places	n/a	37%	52%
Encourage home/car policies	21%	18%	32%
Aware of two or more activities	n/a	47%	87%

Note: n/a = not asked of respondent type.
Source: School-based Youth Survey, 2000 and Adult Telephone Survey, 2000.

Program Effectiveness: Relationships Between Local TCP Efforts and ETS Outcomes

Policy

ETS policy data for all 471 city and 58 county jurisdictions in California were examined to determine which policies had passed during the time period assessed by the Independent Evaluation. Between July 1995 and December 1999, jurisdictions within 13 of the 58 counties passed ETS-related new and amended ordinances that were *stricter* than statewide ETS laws.

- **New ETS policies were passed in 35 percent of counties where LLAs reported ETS-related policy initiation activity, compared to the 17 percent of counties where there was no reported policy initiation activity.**
- **ETS-related policy passage was over two and one-half times more likely in counties where there was local program activity to initiate new ETS policies than in counties where there was no such activity (OR = 2.7; 90 percent CI = [0.90, 7.81]).**

These data suggest that local TCP policy initiation activity is strongly related to ETS policy passage.

Enforcement

Many local TCPs put effort into establishing good working relationships with law enforcement agencies to increase enforcement of state ETS policy provisions. We examined the relationship between local TCP efforts related to ETS enforcement agencies and changes in levels of ETS enforcement by county between 1998 and 2000.

- Greater local TCP effort to promote smoke-free bars within counties was moderately associated with increases in the number of citations ETS enforcement agencies issued to bars (correlation = .37, n.s.) and other workplaces (correlation = .48, $p<.10$) in those counties.
- Greater local TCP effort to promote smoke-free workplaces within counties was also related to increases in the number of citations issued in bars (correlation = .49, $p<.09$), but was not related to citation activities in other workplaces in those counties.
- Higher levels of local TCP collaboration with law enforcement agencies was moderately associated with increases in the number of citations enforcement agencies issued in workplaces in those same counties (correlation = .41, n.s.), but was not related to the number of citations issued in bars.

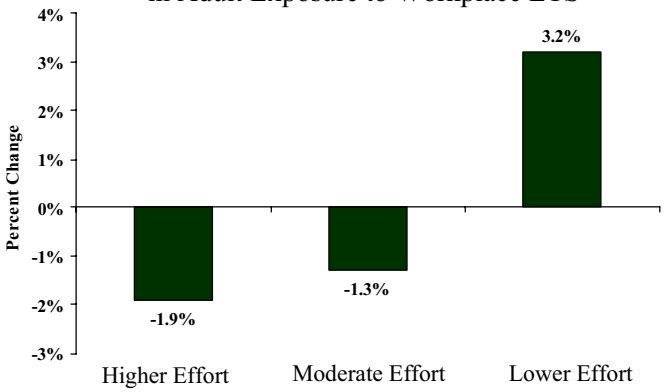
Overall, these results suggest that local TCP efforts may have resulted in increased enforcement of state ETS policy.

Adult and Youth Exposure to ETS

Adults. The ultimate success of the California TCP can be measured by a decrease in the proportion of people who are exposed to ETS at home, work, and other environments.

- **Between 1998 and 2000, higher levels of local program effort devoted to reducing ETS within counties were significantly associated with a decrease in the percent of workers exposed to ETS at work on one or more days per week in those counties (correlation = -.49 for all workers, $p<.04$ and -.43 for nonsmokers, $p<.08$). (See Figure 3-C2.)[5]**

Figure 3-C5
Relationship Between County-Level TCP Efforts
to Reduce ETS Exposure and Percent Change (1998-2000)
in Adult Exposure to Workplace ETS



Note: Higher Effort Counties = Fresno, Sacramento, San Diego, San Mateo, Santa Clara, Shasta;
Moderate Effort Counties = Alameda, Lake, Los Angeles, Monterey, Plumas, San Bernardino;
Lower Effort Counties = Contra Costa, Lassen, Mono, Orange, San Francisco, Yuba.
Source: Project Directors' Survey, 2000; and Adult Telephone Survey, 1998 and 2000.

- However, between 1998 and 2000, total ETS program effort within counties was not significantly associated with reductions in the proportion of adults exposed to ETS at home in those counties, and the relationship was in the unexpected direction (i.e., more ETS effort was associated with increases in exposure; correlation = .27, n.s.).
- In 2000, the Independent Evaluation included a third measure of ETS exposure to assess environments outside of work and the home. More ETS program effort within counties was moderately related to lower ETS exposure in environments outside of home and work in those counties (correlation = -.22, for all adults, n.s. and -.14 for nonsmokers, n.s.).[6]

Youth. Due to the state's restrictions on the types of data that can be collected from school children without active parental consent, the Independent Evaluation did not assess children's exposure to ETS at home directly. Instead, school children were asked about their exposure to ETS indoors (the number of days in the same room with someone who was smoking in the past seven days) and in cars (the number of days in a car with a smoker in the past seven days).

Between 1998 and 2000, the total amount of ETS program effort by county was not significantly related to decreases in 8th- and 10th-graders' exposure to ETS indoors and in cars, and the relationships were in the wrong direction (correlations ranged from .02 to .32, n.s.).

Personal Behavior to Reduce Exposure to ETS

Adult personal policies. In 2000, we found a small relationship between the total amount of local program effort devoted to ETS and increases in the proportion of people asking others

not to smoke between 1998 and 2000 (correlation = .24, n.s., for all adults). There were no meaningful relationships between local ETS efforts and increases in having home or car smoking policies.

Youth talking with others. In 2000, we found that local program efforts devoted to ETS were associated with **increases** between 1998 and 2000 for:

- **8th-graders asking someone not to smoke (correlation = .34, n.s.).**
- **8th-graders talking about ETS outside of school (correlation = .48, p<.05.).**
- **10th-graders talking about ETS outside of school (correlation = .29, n.s.).**

There was no relationship between local ETS program effort and changes in 10th-graders asking someone not to smoke.

Time Trends in Community-Level ETS Outcomes

ETS Policy Passage

As noted earlier, the Independent Evaluation has documented policy activity from July 1995 onward, or post-implementation of the state ETS policy that restricted smoking in workplaces and restaurants (beginning January 1995) and bars (beginning January 1998). Therefore, the interest of the Independent Evaluation has been to document passage of (a) indoor policies that were *stricter* than the state policy and (b) outdoor ETS policies restricting smoking in environments such as community and sporting events.

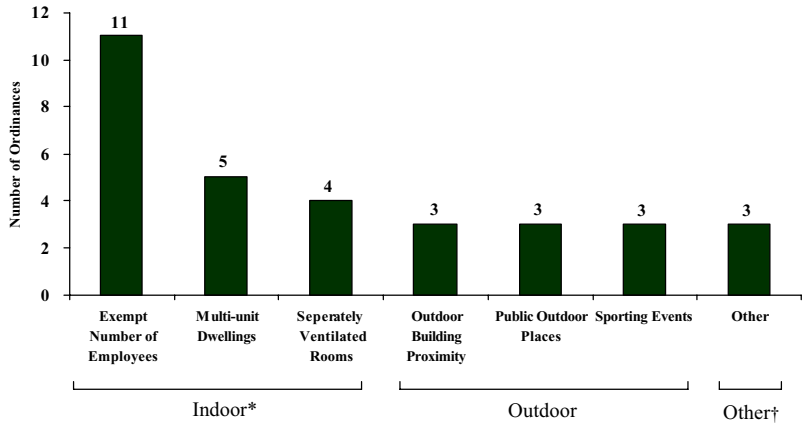
We found that a total of 19 city and county jurisdictions encompassing 7.2 percent of the California population passed ETS policies that were stricter than the state ETS policy. These 19 jurisdictions were contained within the following 13 counties:

Alameda (Berkeley, Oakland)
Butte (Chico)
Contra Costa (Pittsburgh, San Ramon)
Humboldt (Arcata)
Los Angeles (Pasadena)
Marin (Novato)
Napa (Napa)
Orange (Costa Mesa, Laguna Hills)
San Francisco (city and county)
San Mateo (Redwood City, San Mateo County)
Santa Barbara (Buellton, Santa Barbara County)
Santa Clara (Palo Alto, Santa Clara County)
Santa Cruz (Santa Cruz)

These jurisdictions passed policies that included 32 specific new and amended ordinance provisions. Figure 3-C3 shows the number of ETS provisions by specific type. Policies that extended workplace smoking restrictions to small businesses with less than five employees

were passed most often during the evaluation period (n=11), followed by policies to restrict smoking in multi-unit housing complexes (n=5) and policies addressing separate ventilation in workplaces (n=4). Three policies each were passed to restrict outdoor smoking within a given proximity to buildings, in public outdoor spaces, and at public sport and entertainment events. Three "other" types of ETS policies were passed which included requiring workplaces to provide ashtrays outside of buildings and designating an agency responsible for enforcement.

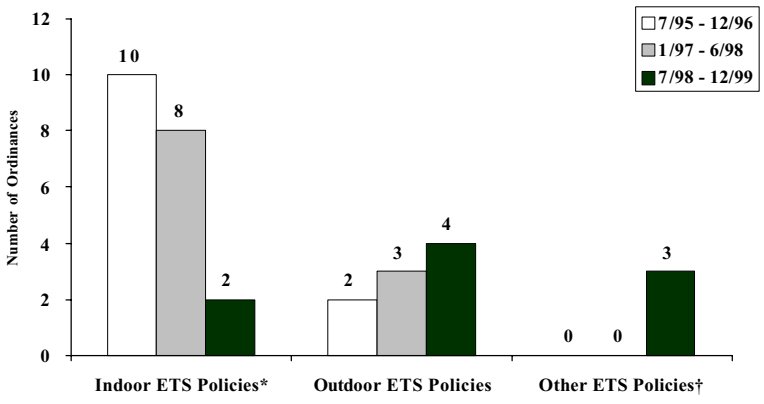
Figure 3-C3
Specific Types of Local ETS Ordinance Provisions Passed
Between July 1995 and December 1999



* Only ETS policies that were stricter than the state ETS indoor law were counted.
† Other = requiring workplaces to provide ashtrays outside of buildings or designating an agency responsible for enforcement of the clean indoor air law (Labor Code 6404.5).
Source: American Nonsmokers' Rights Foundation, 2000; In-house review of local ordinance documents, 2000.

Figure 3-C4 shows the total number of ordinance provisions passed during each evaluation time period. The trends suggest that passage of indoor ETS policies stricter than the state policy decreased over time while passage of outdoor and other ETS policies increased. These trends reflect the progress made by local TCPs in extending ETS protections to additional environments in which children and nonsmokers are exposed to tobacco smoke.

Figure 3-C4
Indoor, Outdoor, and Other Local ETS Ordinance Provisions
Passed in Each Evaluation Period



* Only policies that were stricter than the state ETS law were counted in each evaluation period.
† Other = requiring workplaces to provide ashtrays outside of buildings or designating an agency responsible for enforcement of the clean indoor air law.
Source: American Nonsmokers' Rights Foundation, 2000; In-house review of local ordinance documents, 2000.

Table A-2 in the appendix provides more details on the type of ETS ordinance activity by jurisdiction.

Enforcement of AB 13

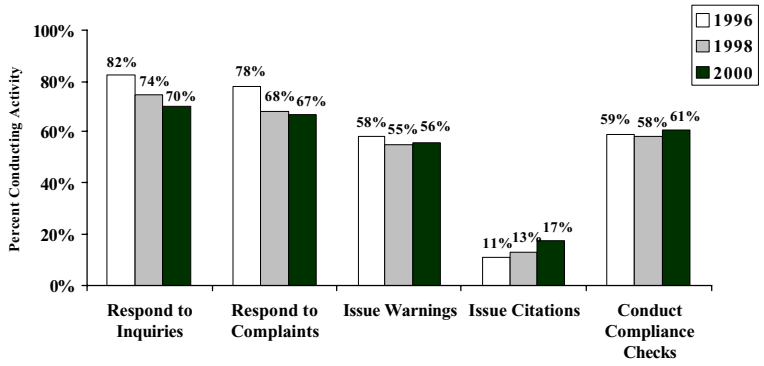
In California, local and state ETS policies are enforced by a variety of agencies, such as county health departments, police and sheriff departments, fire departments, code enforcement officers, building officials, and a number of city administration offices. Enforcement activities may include responding to inquiries and complaints, issuing warnings and citations, and conducting compliance checks. Each city designates the agencies that are responsible for enforcement. In some jurisdictions, only one agency may be responsible while in other jurisdictions multiple agencies have a role; however, usually only one agency has the authority to issue citations.

The state Smokefree Workplace Law (AB 13) includes provisions prohibiting smoking in restaurants and workplaces with more than five employees. It also includes provisions prohibiting smoking in bars, nightclubs, lounges, restaurants with bars, and gaming rooms regardless of the number of employees. Since the smoke-free bar provision of AB 13 was implemented fairly recently and enforcement issues in bars have especially high importance for local TCPs, we present the data on enforcement of the AB 13 provisions that govern restaurants and workplaces and those that govern the smoke-free bar law separately. However, we compare the similarities and differences between enforcement in restaurants and workplaces vs. bars, both descriptively and statistically.[7]

Restaurants and Workplaces

Proportion of agencies active in enforcement. Figure 3-C5 indicates that the majority of enforcement agencies had responded to inquiries (70 percent) and complaints (67 percent), issued warnings (56 percent), and conducted compliance checks (61 percent) to enforce the AB 13 provisions governing restaurants and workplaces during the six months prior to the 2000 survey. Relatively few agencies reported issuing citations (17 percent).[8]

Figure 3-C5
Local ETS Enforcement Agencies' Activities
in Restaurants and Workplaces

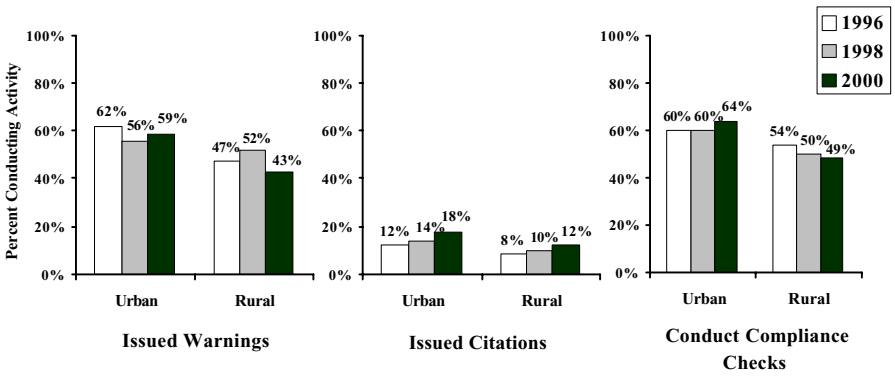


Note: Percentages reflect the number of agencies that reported doing at least one instance of enforcement in the six months prior to the survey.
Source: ETS Enforcement Survey, 1996, 1998, and 2000.

Comparing only those jurisdictions that provided enforcement data in both 1996 and 2000 (n=130), there were significant decreases over time in the number of enforcement agencies that responded to inquiries ($p<.01$), responded to complaints ($p<.01$), and issued warnings ($p<.07$). Changes for other enforcement activities were not statistically significant.[9]

Figure 3-C6 shows that in each evaluation period, a majority of urban agencies had issued warnings and conducted compliance checks to enforce the ETS restrictions in restaurants and workplaces. **For some evaluation periods, including the most recent one, less than one-half of rural agencies had issued warnings or conducted compliance checks.** The proportion of urban and rural agencies that enforced with warnings and compliance checks fluctuated between measurement periods, whereas **the proportion of urban and rural agencies that issued citations showed a steady increase over time** (12 percent to 18 percent, and 8 percent to 12 percent respectively).

Figure 3-C6
ETS Enforcement Agencies' Activities in Restaurants and Workplaces
for Urban and Rural Counties

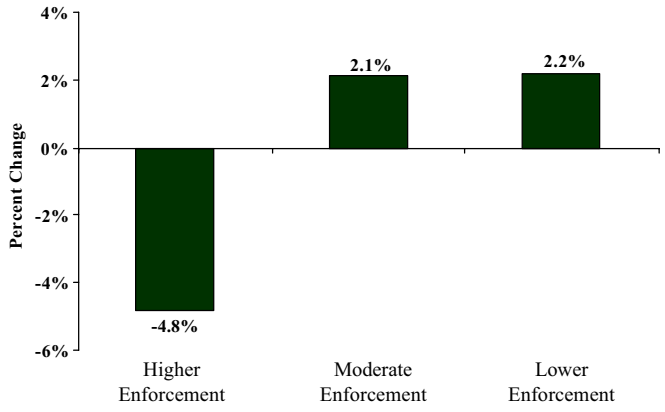


Note: Percentages reflect the number of agencies that reported doing at least one instance of enforcement in the six months prior to the survey.
Source: ETS Enforcement Survey, 1996, 1998, and 2000.

Frequency of enforcement. Agencies reported enforcing AB 13 at moderate to low levels (means ranged from 1.5 to 2.8 on a 7-point scale across the different types of enforcement activity). However, the data suggested that even moderate levels of enforcement of the smoke-free law concerning restaurants and workplaces is very important to the TCP goal of reducing Californians' exposure to ETS.

- **Higher levels of ETS enforcement during the 1999 calendar year were significantly related to decreases in adult exposure to workplace ETS between 1998 and 2000 (correlation = -.67, p<.01). (See Figure 3-C7)[10]**

Figure 3-C7
Relationship Between County-Level ETS Enforcement and Percent Change (1998-2000) in Adult Exposure to Workplace ETS



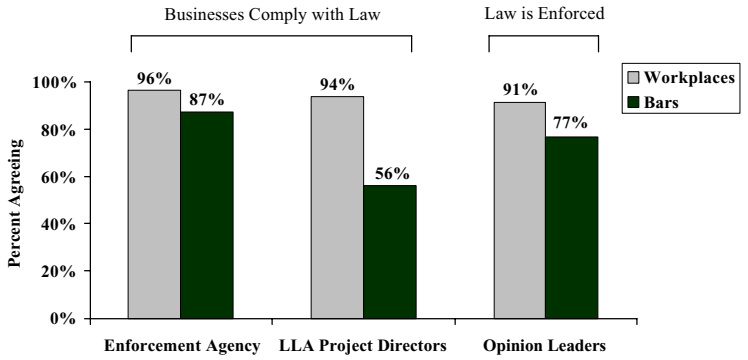
Note: Higher Enforcement Counties = Alameda, Sacramento, San Mateo, Santa Clara, Shasta; Moderate Enforcement Counties = Contra Costa, Lassen, Los Angeles, Orange, San Diego; Lower Enforcement Counties = Fresno, Mono, Monterey, San Bernardino, San Francisco.
Source: ETS Enforcement Survey, 2000,; and Adult Telephone Survey, 1998 and 2000.

Analyses of differences between urban and rural agencies in 2000 indicated that:

- Urban agencies issued warnings more frequently than rural agencies (means = 2.4 vs. 1.8, $p<.04$), but there were no statistically significant differences between these groups for citations and compliance checks.
- Urban agencies reported more overall enforcement than rural agencies (mean of the five types of enforcement activity = 2.5 vs. 1.9, $p<.01$).[11]

Perceived need for enforcement. The relatively low level of enforcement activity may reflect community and agency perceptions that there is little need for additional enforcement. For example, enforcement agencies rated enforcement of AB 13 as only moderately important (mean = 4.5 on a 7-point scale). Also, Figure 3-C8 shows that nearly all enforcement agencies (96 percent) and TCP project directors (94 percent) believed that restaurants and workplaces were compliant with AB 13. Similarly, the majority of key opinion leaders (91 percent) believed that the law was enforced. **These nearly universal opinions indicate that key informants believe that compliance with, and enforcement of the indoor smoke-free law for restaurants and workplaces is well in hand.**[12]

Figure 3-C8
Perceptions of Compliance and Enforcement* of the Smoke-Free Workplaces and Bars Law



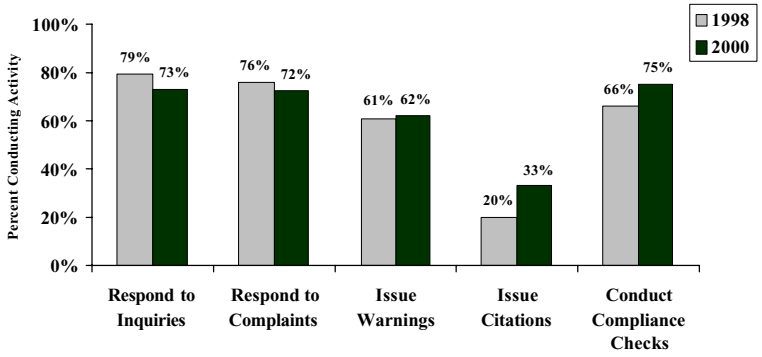
* Enforcement agencies and project directors were asked whether businesses comply with the law; opinion leaders were asked if the law was enforced in their community.
Source: ETS Enforcement Survey, 2000; Project Directors' Survey, 2000; and Opinion Leader Survey, 2000.

Bars

Beginning with the 1998 ETS enforcement surveys, the Independent Evaluation included a separate section to assess agencies' attitudes and activities related to the smoke-free bar law that was implemented in January 1998.[13]

Proportion of agencies active in enforcement. Figure 3-C9 indicates that the majority of enforcement agencies (n=170) had enforced the provisions of AB 13 governing smoke-free bars by various means in both 1998 and 2000. For most types of enforcement activities, there was little change over time in the number of agencies conducting the activity. Compared to enforcement in restaurants and workplaces (see Figure 3-C5), slightly more agencies had responded to inquiries (73 percent) and complaints (72 percent), issued warnings (62 percent), and conducted compliance checks (75 percent), but the differences for most types of enforcement were negligible. For example, in 2000, 62 percent of enforcement agencies had issued warnings to bars during the six months prior to the survey, compared to 56 percent that had issued warnings to restaurants and workplaces.[14]

Figure 3-C9
Local ETS Enforcement Agencies' Activities in Bars



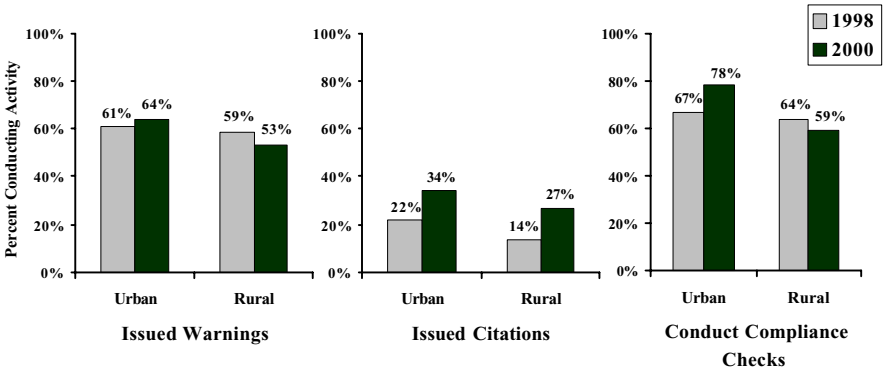
Note: Percentages reflect the number of agencies that reported conducting at least one instance of enforcement in the six months prior to the survey.
Source: ETS Enforcement Survey, 1998 and 2000.

Analysis of the data on citations revealed a number of findings suggesting that enforcement of the smoke-free bar law gained momentum between 1998 and 2000. These findings are important since issuing a citation is one of the stronger acts of enforcement.

- There was a significant increase in the number of agencies issuing citations to bars between 1998 and 2000 ($p<.05$).[15]
- Nearly twice as many agencies issued citations for violations of the smoke-free bar law than for violations of the restaurant and workplace law in 2000 ($p<.01$).[16]
- **More than twice as many citations were issued to bars during the six months prior to the 2000 survey (mean = 14.4 citations; range = 1 to 75) than in 1998 (mean = 5.7; range = 1 to 25). The change was not statistically significant, however.**[17]
- Sixty-eight percent of issued citations were prosecuted in 2000, up from 60 percent in 1998. The trend is encouraging but the change was insignificant.[18]

Figure 3-C10 shows that the majority of enforcement agencies in both rural and urban counties issued warnings and conducted compliance checks to enforce the smoke-free bar law. Consistent with the trend data for restaurants and workplaces, the proportion of both urban and rural agencies issuing citations showed a steady increase over time (22 percent to 34 percent and 14 percent to 27 percent, respectively).

Figure 3-C10
ETS Enforcement Agencies' Activities in Bars
for Urban and Rural Counties



Note: Percentages reflect the number of agencies that reported doing at least one instance of enforcement in the six months prior to the survey.
Source: ETS Enforcement Survey, 1998 and 2000.

Frequency of enforcement. Agencies reported enforcing the smoke-free bar law at low to moderate levels (means ranged from 2.0 to 3.5 on a 7-point scale across the five types of enforcement activity), similar to the levels of enforcement reported for restaurants and workplaces. The trend suggests that agencies enforced the smoke-free bar law more frequently for each type of activity than they enforced the restaurant and workplace provisions of AB 13. Averaging across the five types of enforcement, the overall mean was 2.9 for bars and 2.4 for restaurants and workplaces ($p<.01$).

Analyses of differences between urban and rural agencies in 2000 indicated that:

- Urban agencies issued citations more frequently than rural agencies (means = 2.1 vs. 1.6, $p<.05$). However, from 1998 to 2000, the proportion of rural agencies issuing citations grew at twice the rate for urban agencies (93 percent vs. 45 percent). If this rate of increase continues, rural agencies will soon be on a par with urban agencies.
- Urban agencies conducted compliance checks more frequently than rural agencies (means = 3.7 vs. 2.7, $p<.01$), but were no more likely to issue warnings.
- When comparing overall enforcement, urban agencies enforced the smoke-free bar law more frequently than rural agencies (means = 3.1 vs. 2.3, $p<.01$).

Perceived need for enforcement. In general, agencies enforced the smoke-free bar law more than other provisions of AB 13. This difference may reflect agencies' belief that there was a greater need for enforcement of the smoke-free bar law because of lower levels of compliance. For example, referring back to Figure 3-C8, enforcement agencies rated bars as less compliant than restaurants and workplaces (87 percent vs. 96 percent). In addition, fewer LLA project directors thought that bars were compliant compared to restaurants and

workplaces (56 percent vs. 94 percent). Key opinion leaders also believed that there was less enforcement in bars than restaurants and workplaces (77 percent vs. 91 percent).

Despite these perceptions that compliance and enforcement were lower in bars than restaurants and workplaces, overall enforcement of the smoke-free bar law was still relatively low. Agencies rated enforcement of the smoke-free bar law as only moderately important (mean=4.2 on a 7-point scale), similar to their rating for enforcement in restaurants and workplaces (mean=4.5). Actual enforcement and perceptions of its importance may be driven more by enforcement agencies' belief that compliance was high than by project directors' belief that compliance was lacking.[19]

Predictors of enforcement. The TCP views enforcement of tobacco control policies as important to achieving its goal of a smoke-free California. Therefore, the Independent Evaluation was interested in identifying factors of enforcement agencies that were associated with, or predicted, higher levels of enforcement. We examined relationships between overall enforcement and five predictors: belief that ETS exposure is a serious problem, belief that enforcement is important, perception that bars are compliant, beliefs about the extent of barriers to clean indoor air policies, and perceptions regarding collaboration with other individuals or groups concerned about ETS.[20]

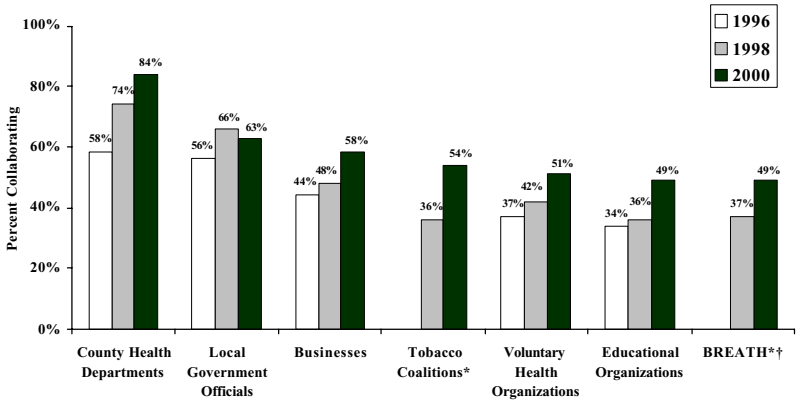
In 2000, as in 1998, higher levels of ETS enforcement in bars was associated with agencies that reported:

- **Stronger belief that enforcing the smoke-free bar law is important, relative to other types of enforcement activities ($p<.01$).**
- **Lower perceived compliance with the smoke-free bar law ($p<.01$).**
- **Higher levels of collaboration with other individuals and groups on education or enforcement of ETS policies ($p<.01$).**

Similar analyses were conducted with two other outcomes: the frequency of issuing citations and prosecution rates. The results indicated that agencies that issued more citations reported greater collaboration with other groups ($p<.05$). Prosecution rates were not associated with any predictor variable.

Collaboration. In every evaluation period, ETS enforcement agencies reported collaborating with a variety of groups, including community-based organizations, public agencies, businesses and elected officials. Figure 3-C11 shows the proportion of agencies that collaborated with different groups in each evaluation period. In 2000, enforcement agencies reported the highest levels of collaboration with health departments (84 percent) and local government officials (63 percent).

Figure 3-C11
Percent of ETS Enforcement Agencies Reporting
Collaboration with Other Groups



* Collaboration was not measured for these groups in 1996.
† BREATH is a TCP-funded community program working to support the California Smoke-Free Bar Law.
Source: ETS Enforcement Survey, 1996, 1998, and 2000.

Collaboration appears to be increasing. The proportion of agencies collaborating with at least one other group was 78 percent in 1996, increasing to 85 percent in 1998 and reaching 89 percent in 2000 ($p<.01$). The overall increase in collaboration was driven by a subset of groups, most notably with two groups specifically dedicated to tobacco control: local health departments and tobacco control coalitions.[21] These signs of increased collaboration with tobacco control groups bode well for future enforcement efforts.

Time Trends in Individual-Level ETS Outcomes

The primary ETS-related goal of the California TCP is to reduce people's exposure to ETS. Between 1996 and 2000, a number of statistically significant changes occurred in ETS-related outcomes, all in a positive direction. In this section, we report on the point prevalence and amount of change in ETS-related outcomes between 1996 and 2000 for California adults and youth and, where meaningful, for various subgroups such as smokers and nonsmokers or rural and urban residents.

Exposure to ETS at Home and Indoors

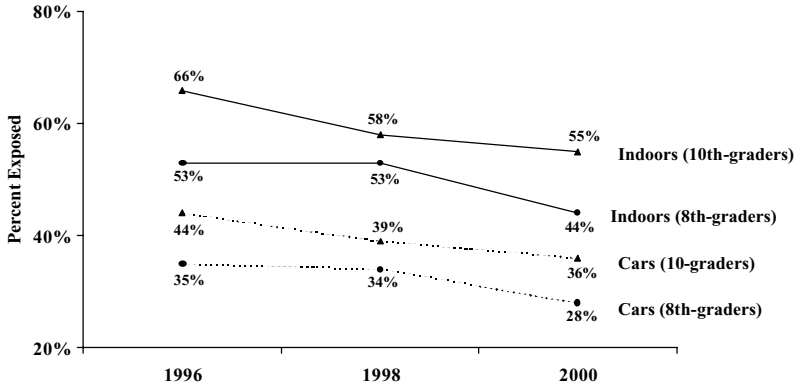
Fewer California adults have been exposed to ETS in their home during the course of the Tobacco Control Program. Between 1996 and 2000, the percent of California adults exposed to ETS in their home decreased significantly from 24 percent to 20 percent ($p<.01$). Reductions in ETS exposure at home occurred for both smokers (from 52 percent to 47 percent) and nonsmokers (from 18 percent to 14 percent), although only the decrease for nonsmokers was significant ($p<.01$).

Figure 3-C12 shows time trends for the percentage of youth having some exposure to smoke indoors and in cars. **California has made inroads in reducing the number of 8th- and 10th-graders exposed to ETS indoors (while in the same room with someone who was smoking cigarettes) and in cars.**

- **From 1996 to 2000, fewer 8th-graders (53 percent to 44 percent; p<.01) and fewer 10th-graders (66 percent to 55 percent; p<.01) reported exposure to ETS indoors in the past seven days.[22]**

- **From 1996 to 2000, fewer 8th-graders (35 percent to 28 percent; p<.01) and fewer 10th-graders (44 percent to 36 percent; p<.05) reported some exposure to ETS in cars in the past seven days.[23]**

Figure 3-C12
Youth Exposed to ETS Indoors or in Cars
in the Past Week



Source: School-based Youth Survey, 1996, 1998, and 2000.

Exposure to ETS at Work

Since the start of the California TCP in 1989, through the implementation of AB 13, fewer and fewer California workers have been exposed to ETS in their places of employment.

The Independent Evaluation measured the percent of nonsmoking workers who were exposed to secondhand smoke *anywhere* in the workplace on one or more days in the past week. From 1996 to 2000, there was a insignificant decline in the percent of nonsmoking workers who reported some exposure to smoke at work, from 27 percent to 25 percent.[24]

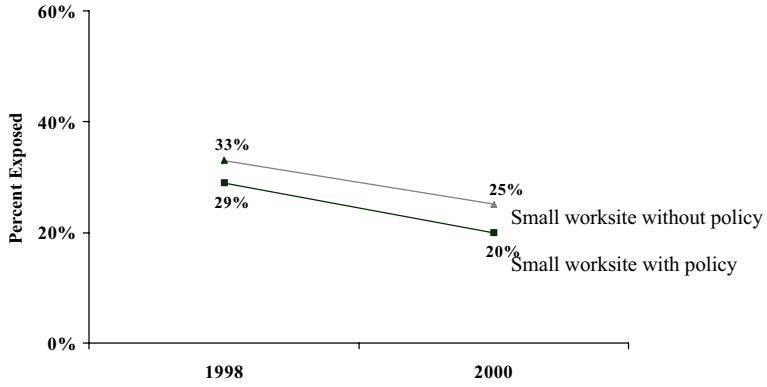
Since the vast majority of workers know that their workplace has an official no-smoking policy (Independent Evaluation Consortium, 1998) and large workplaces are covered by the state ETS policy, we were interested in knowing more about smoking and smoking policies in small worksites. About ten percent of all workers in California are employed in worksites with five or fewer employees. These employees are not covered by the state smoke-free workplace policy, unless they work in bars, nightclubs, or gaming rooms, although some local efforts have sought to extend the benefits of smoke-free worksites to them. In 2000, the Independent Evaluation examined three indicators to assess changes in social norms about smoking in small work sites, which are discussed below. Positive changes in these indicators are congruent with the TCP goal of reducing ETS exposure at work.[25]

One indicator of social norm change is to measure whether the number of small worksites with official no-smoking policies increased between 1996 and 2000. Among workers employed in small worksites, 56 percent reported that their place of work had an official policy restricting smoking in 2000, a insignificant change from 55 percent in 1996.

A second indicator measured whether fewer workers reported that smokers violated no-smoking policies at work in 2000 than in 1996. Between 1996 and 2000, there was a decrease in the percent of workers who reported that some to all smokers were breaking the no-smoking rules (23 percent to 16 percent). Although this decrease was not statistically significant, the trend was in the right direction.[26]

A third indicator examined whether fewer workers were exposed to ETS at small worksites *with* no-smoking policies than at small worksites *without* no-smoking policies. Figure 3-C13 shows that in worksites with policies there was a 31 percent relative decrease in the number of nonsmokers exposed to ETS, from 29 percent in 1998 to 20 percent in 2000. Similarly, there was a 24 percent relative decrease in ETS exposure for nonsmokers in worksites without policies, from 33 percent in 1998 to 25 percent in 2000. Despite the large decreases observed, neither change was statistically significant. In addition, a comparison of worksites with and without no-smoking policies in 2000 indicated no significant difference in the numbers of nonsmokers exposed to ETS (20 percent vs. 25 percent). The fact that workers at worksites without policies are being exposed to less ETS over time is encouraging and may indicate that the smoke-free message is taking hold even in worksites that do not have an official policy restricting smoking.

Figure 3-C13
ETS Exposure at Work for Employees in Small Worksites
With and Without a No-Smoking Policy



Source: Adult Telephone Survey, 1998 and 2000.

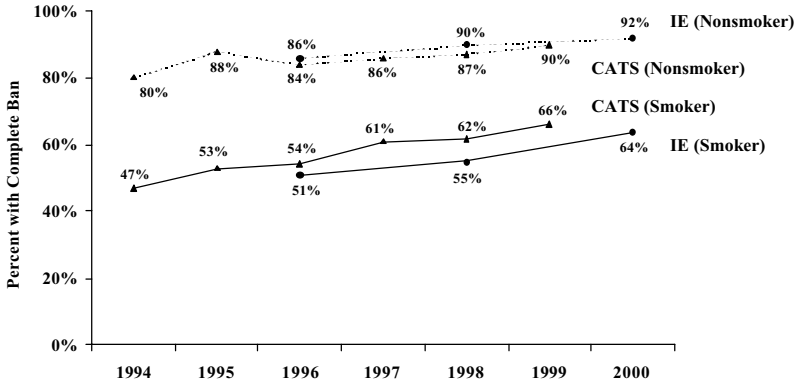
Voluntary Policies to Reduce ETS

Home No-Smoking Policy

The major source of exposure to ETS among young children is smoking by parents in the home (Brownson et al, 1997). Older children are also at risk because the home is the primary setting where smokers expose nonsmoking household members to ETS (Emmons et al, 1992). By establishing a home no-smoking policy, parents may protect their children from ETS exposure at home (Norman et al., 1999).

Figure 3-C14 shows that the proportion of California parents with children under 18 years old who report having a complete ban on smoking in the home has been rising since 1994 for both smokers and nonsmokers.

Figure 3-C14
Parents of Children Under 18 Years Having a Complete Ban on Smoking in Their Home



Note: IE = Independent Evaluation, CATS = California Adult Tobacco Survey;
there were slight differences in the home policy response categories for these surveys.
Source: IE Adult Telephone Survey, 1996, 1998, and 2000, California Adult Tobacco Survey, 1994-1997.

A number of findings indicate that California parents have heard the message that smoke-free homes are important for their children's health.

- **Between 1996 and 2000, there was a significant increase in households with children that had home no-smoking policies for both nonsmokers (86 percent to 92 percent, p<.01) and smokers (51 percent to 64 percent, p<.04).**
- **Although fewer smoking than nonsmoking households with children had a home policy, the difference between policy prevalence in the two types of households decreased from a 35 percent difference in 1996 (51 percent vs. 86 percent) to a 28 percent difference in 2000 (64 percent vs. 92 percent). This finding may mean that the home policy message of the TCP is reaching smoking households, where children are most vulnerable.**
- Home no-smoking policies were more prevalent in households with children than in households without children for both nonsmokers (92 percent vs. 86 percent, n.s.) and smokers (64 percent vs. 41 percent, p<.01) in 2000.
- Most parents (71 percent) reported that they did not have to enforce their home no-smoking policy in the past year. However, smokers with children (37 percent) were more likely than nonsmokers with children (28 percent) to have asked someone to follow their home smoking ban in 2000 (p<.08)**.**

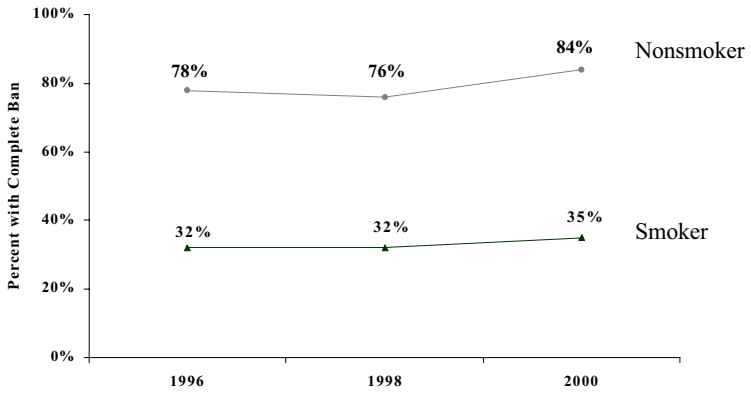
These data indicate that over the course of the TCP, California has made significant strides in protecting children from ETS exposure in their own homes.

Car No-Smoking Policy

In 2000, 84 percent of nonsmoking parents with children under 18 years old had a complete ban on smoking in their family car, which represented a significant increase from 78 percent in 1996 ($p<.01$). Far fewer smoking parents had a complete ban on smoking in their family car in 2000 (35 percent), and this percentage has not changed significantly since 1996 (32 percent). Furthermore, the gap between nonsmoking and smoking parents does not appear to be narrowing, unlike the trend seen for home smoking bans.

There is still considerable room for the TCP to encourage smoking parents to create no-smoking policies for their family cars. Some research has indicated that within the confined space of a car, ETS spreads nearly instantaneously and has a very high concentration of toxic chemicals found in cigarette smoke, such as CO_2, formaldehyde, and respirable suspended particulates (Park et al, 1998). The family car may be one of the most dangerous places for children to be exposed to ETS.

Figure 3-C15
Parents of Children Under 18 Having a Complete Ban on Smoking in Their Family Car



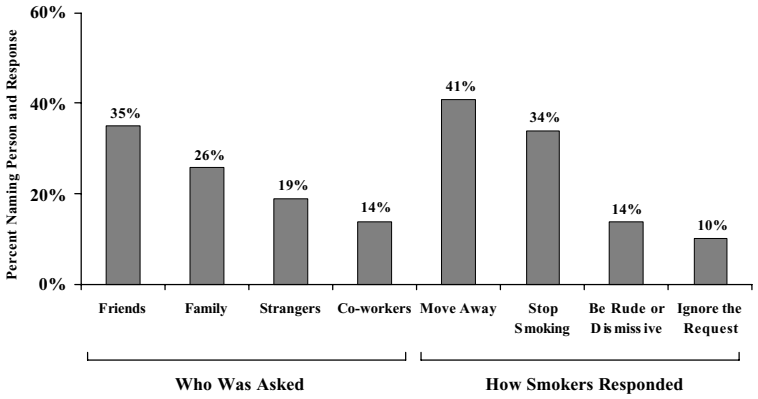
Source: Adult Telephone Survey, 1996, 1998, and 2000.

Asking Smokers to Stop or Move to Another Area

Adults. In 2000, adults were asked how easy it would be for them to ask a smoker to stop or move to another area, if they were bothered by the smoke. Over one-half (57 percent) of adults reported that it would be easy for them to make this request.[27] However, of those who had been around smokers in the past year, less than one-half (41 percent) had actually asked a smoker to stop or move.

When respondents were asked *who* they had asked to stop smoking or move, it was most frequently a friend (35 percent) or family member (26 percent). (See Figure 3-C16.) In addition, they reported that the smoker's response was usually positive. These data suggest that a personal policy to ask someone not to smoke around others may prove to be an effective strategy for reducing exposure to ETS.[28]

Figure 3-C16
Who Adults Asked Not to Smoke Around Them and How Smokers Responded

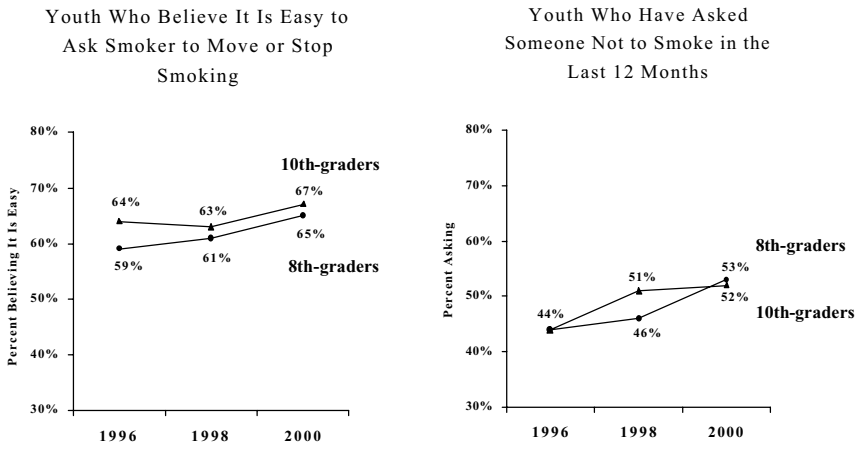


Note: Numbers do not add up to 100% because the category "other" was excluded.
Source: Adult Telephone Survey, 2000.

Youth. In general, compared to adults, youth believed it would be easier to ask someone not to smoke around them, and more youth reported having asked someone not to smoke. (See Figure 3-C17)

- In 2000, 65 percent of 8th-graders and 67 percent of 10th-graders reported it would be easy to ask a smoker to stop or move to another area. For 8th-graders, this percentage represented a significant increase from the 57 percent who reported it would be easy to ask a smoker to stop or move in 1996 ($p<.01$).
- The number of youth who actually asked someone not to smoke in the past 12 months increased between 1996 and 2000, from 44 percent to 53 percent for 8th-graders and from 44 percent to 52 percent for 10th-graders ($p's<.01$).

Figure 3-C17



Source: School-based Youth Survey, 1996, 1998, and 2000.

Attitudes and Policy Support

California's Smoke-Free Bar Law

The final provision of California's state policy to protect the public from ETS in enclosed public workplaces was the requirement that bars be smoke-free. Prior to the law's implementation in January 1998 and continuing into 2000, local community programs, as well as the statewide TCP media campaign, have sought to create support for the law and educate the public and bar owners about it.

Overall, support for the smoke-free bar law is strong and has grown over time. In the public's view, violations of the law are decreasing. In addition, the data presented earlier in the Countering Pro-Tobacco Influences section (3-B) suggest that key opinion leaders want to keep smoking away from California bars and nightclubs.[29]

Most Californians state a personal preference for smoke-free bars.

- Eighty-one percent of adults stated that they preferred bars to be smoke-free in 2000, a significant increase from the 75 percent in 1996 ($p<.01$).
- Seventy-one percent of adults did not think it was okay for smokers to smoke around nonsmokers in bars in 2000, a significant increase from the 63 percent in 1998 ($p<.01$).
- From 1998 to 2000, there was a significant increase in the percent of urban residents (from 62 percent to 74 percent) and rural residents (from 63 percent to 66 percent)

who believed nonsmokers should not be exposed to smoke in bars (p's<.05). However, urban residents seem to be adopting this view at a faster pace than rural residents, and in 2000, significantly more urban than rural residents held this belief (p<.01).

The California public and its leaders firmly support keeping the smoke-free bar law.

- Sixty-eight percent of adults were against overturning the bar law in 2000, up significantly from the 65 percent percent with this opinion in 1998 (p<.05).
- Eighty-one percent of key opinion leaders were against overturning the law in 2000, virtually identical to the 80 percent who were opposed in 1998.

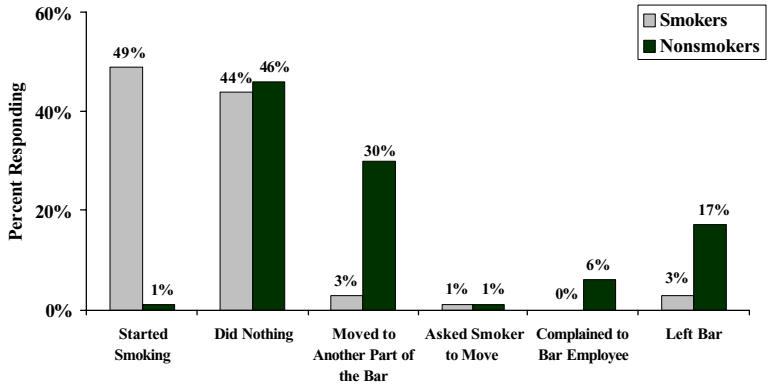
Bar patrons report seeing fewer violations of the law.

A major area of effort for local TCPs has been to facilitate the goals of the smoke-free bar law. There is some evidence that compliance with the law is increasing. In 2000, fewer bar patrons had seen smoking in a bar in the previous 12 months (47 percent) than in 1998 (51 percent, n.s.). In rural counties, significantly fewer bar patrons had seen smoking in 2000 (51 percent) than in 1998 (58 percent, p<.07).

In 2000, bar patrons who had seen smoking in bars were asked what they did in response. (See Figure 3-C18)

- Although most nonsmokers did nothing (46 percent) or moved to another part of the bar (30 percent), 6 percent of nonsmokers were proactive by complaining to a bar employee, and 17 percent left the bar. Three percent of smokers also reported leaving a bar when there was smoking. **These data indicate that as many as 13 percent of smoking and nonsmoking bar patrons will leave a bar when there is smoking.**
- **Nearly one-half of all smokers who saw someone else smoking in a bar took this as an opportunity to smoke themselves. These data suggest that by allowing any smoking, bars encourage additional patrons to break the law.**

Figure 3-C18
What Patrons Did When They Saw
Smoking in a Bar



Source: Adult Telephone Survey 2000.

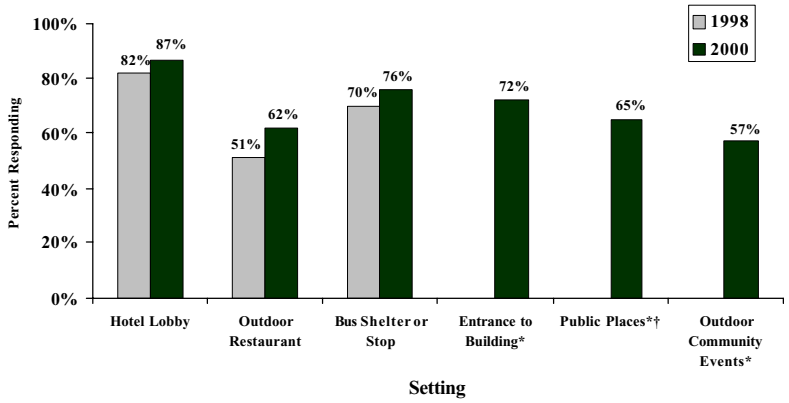
Public Acceptance of Smoking in Other Settings

The majority of Californians, both the public and key opinion leaders, agree that smoking in outdoor public places should be restricted.

- Between 1996 and 2000, public support for restrictions increased somewhat from 57 percent to 60 percent ($p<.08$), while key opinion leaders' support decreased insignificantly from 59 percent to 53 percent.
- In 2000, urban residents (62 percent) were more likely than rural residents (55 percent) to agree that smoking should be restricted in outdoor public places ($p<.01$). Urban key opinion leaders (55 percent) were somewhat more likely than rural key opinion leaders (49 percent) to agree that smoking should be restricted in outdoor public places, but the differences were not significant.

In addition to assessing general support for outdoor smoking restrictions, the Independent Evaluation asked respondents about the acceptability of smoking in various settings in 1998 and 2000. Adults were asked whether they thought it was "okay for a person to smoke around nonsmokers" in six settings not covered in current statewide clean air law.

Figure 3-C19
Percent of People Who Judged Smoking to be Unacceptable in Different Settings



* Measured in 2000 only.
† Public places include zoos, playgrounds, and college campuses.
Source: Adult Telephone Survey, 1998 and 2000.

Opinions about three settings were assessed in both 1998 and 2000: hotel lobbies, outdoor cafes or restaurants, and bus shelters or bus stops (see Figure 3-C19). There were significant increases in the percent of people who thought it was unacceptable to smoke around others in each of these settings (p's<.01), and the proportion of people holding these views was large. An additional three settings were measured in 2000, in accordance with the increasing interest of the California TCP to extend smoke-free "zones" to other outdoor public venues. These settings were close to the entrance of businesses and public buildings; public places such as the zoo, playgrounds, or on college campuses; and outdoor community events such as fairs, rodeos, and concerts. As shown in Figure 3-C19, most people thought that smoking was unacceptable in each setting.

- **There was a high degree of consensus among the public that smoking was unacceptable in hotel lobbies (87 percent), bus shelters (76 percent) and close to building entrances (72 percent).**
- **There was also considerable consensus that smoking in public places such as the zoo (65 percent) or at outdoor restaurants (62 percent) was unacceptable.**
- **The area with the least consensus, but still a majority opinion, was the unacceptability of smoking at outdoor community events (57 percent).**

Urban and rural residents were in agreement except in their opinions about whether it was acceptable to smoke in outdoor restaurants. In 2000, urban residents (65 percent) were more likely than rural residents (58 percent) to think smoking was unacceptable in outdoor restaurants (p<.05).

D. REDUCING YOUTH ACCESS (YA) TO TOBACCO PRODUCTS

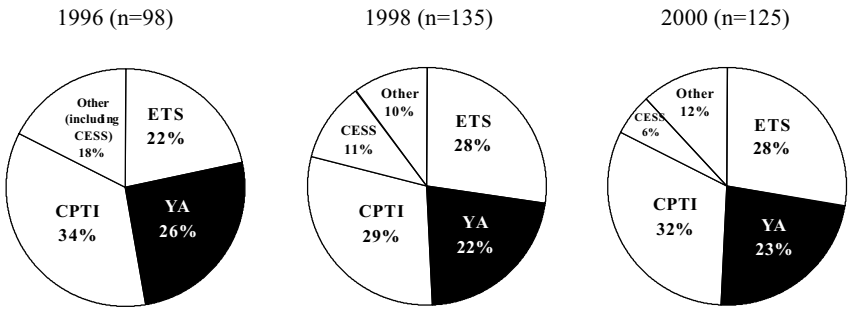
The Program and Its Effectiveness

Local YA Program Efforts[1]

Overall Effort

Reducing YA to tobacco is the third major priority area of the California tobacco control program (TCP). Although it constitutes a significant proportion of local TCP efforts, the overall effort devoted to this area has dropped since the first Independent Evaluation period (1996). Over the last two evaluation periods, less than 25 percent of total local program efforts have been devoted to reducing YA (see Figure 3-D1).

Figure 3-D1
Percent of Local TCP Effort Spent
in the YA Priority Area



Source: Progress Report Activity Tracking Data, 1996; Project Directors' Survey, 1998 and 2000.
Due to rounding, percentages may not add up to 100%.

Types of Activities

Table 3-D-1 illustrates the different types of YA activities in which local programs engaged during the 2000 evaluation period, and the amount of local TCP effort allotted to each activity type. Activities are ordered from most to least amount of overall effort.

Table 3-D1
Percent of Local TCP Effort Spent
on Specific YA Activities

Activities	Percent of Overall Effort	Percent of YA Efforts
Educate Public about Social Sources of Tobacco	5.6%	23.9%
Pass or Strengthen Existing Local Ordinances	4.4%	19.1%
Reduce Illegal Sales in Retail Outlets		
Educate Merchants About YA Laws	4.4%	18.7%
Monitor Merchant Compliance via Purchase Surveys	3.3%	14.3%
Promote Enforcement of YA Laws	2.8%	11.9%
Other Activities to Reduce Youth Access	2.8%	12.0%
Overall Effort on Youth Access Activities	23.3%	100.0%

Source: Project Directors' Survey, 2000.
Due to rounding, percentages may not add up to 100%.

Social Sources. Although an important source of cigarettes for underage youth is illegal sales in retail outlets, most youth report getting their last cigarette from other people or "social sources" (i.e., friends, family members, and even strangers). During the 2000 evaluation period, local TCPs put about six percent of their total effort (about 24 percent of YA effort) toward educating the public about the extent of social sources of cigarettes and the need to stem this access route to tobacco. Sixty-three percent of local TCPs did at least some work in this area. Many local TCPs aired radio or television messages about the problem of social sources. Examples of these messages included "Don't get me started" and "Friends don't give friends cancer." Other agencies utilized existing community and youth education programs to deliver social sources messages.

Reduce Illegal Sales in Retail Outlets. Three types of YA activities sought to reduce the illegal sale of tobacco to minors at retail outlets: merchant education programs, monitoring merchant compliance with YA laws via purchase surveys, and promoting enforcement of YA laws. Combined, these three activities accounted for over ten percent of local TCP efforts (45 percent of YA efforts).

Merchant Education. Most local TCPs (64 percent) worked on merchant education activities, and on average, put four percent of their total effort (19 percent of YA efforts) into merchant education. Merchant education involved activities such as educating sales clerks and retail owners about the state YA laws, including when and how to check identification and spot fake identification cards, as well as increasing general awareness of the problem.

In the most recent evaluation period, the California TCP engaged in a renewed effort to educate merchants about the Stop Access to Kids Enforcement (STAKE) Act, which requires merchants to take a number of steps to reduce YA.[2] From July 1998 through December

1999, local TCPs and other groups requested over 280,000 STAKE Act materials from the Tobacco Education Clearinghouse of California. This included about 70,000 merchant education kits that were distributed to retailers across California by local TCPs in August of 1999. These kits explained the California law prohibiting sales of tobacco products to minors and provided merchants with newly redesigned STAKE Act signs that are required by law to be posted in stores where tobacco is sold. Most other requests were from the retailers to obtain signs, posters, brochures, and translations of materials in other languages.[3]

Purchase Surveys. Many local TCPs worked with youth to monitor the retail environment by conducting their own youth purchase surveys, accounting for 3.3 percent of total local TCP effort (14.3 percent of YA effort). During these surveys, youth attempted to buy cigarettes and recorded information about the store and its level of compliance. These surveys helped the local TCPs assess the extent of the problem of illegal sales to minors in their communities and identify stores that need intervention. TCPs often shared the results from these purchase surveys with local law enforcement agencies, and in some cases with local media to congratulate compliant stores and/or to publicly identify non-compliant stores.

YA Enforcement. Local TCPs put 2.8 percent of their total effort (11.9 percent of YA efforts) into encouraging enforcement of state law governing tobacco sales to youth and youth possession of tobacco (Penal Code 308). In many jurisdictions, the TCPs recruited youth to assist local police departments with undercover buys or compliance checks of tobacco retailers. Some LLAs were also involved in a statewide TCP-sponsored training program to educate police and sheriff departments in the enforcement of Penal Code 308. Ten trainings were conducted across the state between February 1997 and December 1999, involving hundreds of enforcement officials from nearly 200 agencies.

Local Ordinance Work. On average, over 4.4 percent of local TCP effort (19.1 percent of YA efforts) went toward passing new or strengthening existing youth access local ordinances between 1998 and 2000. Prior to and including that time, there was a great deal activity in the area of local ordinances to reduce youth access to tobacco. For example, as of December 31, 1999, 161 jurisdictions had local vending machine restrictions, 86 had local bans on self-service tobacco displays, 41 had local bans on handing out tobacco products as promotional samples, and 32 had local bans on the sale of single cigarettes.

Implementation of the MSA in late 1998, eliminated tobacco "sampling" at public events and, through December 2001, the sale of single cigarettes. However, the MSA did not limit the existence of self-service tobacco displays in retail outlets. In self-service displays, tobacco products are accessible to the public without the assistance of a clerk and are generally thought to make it easier for youth to purchase or steal cigarettes. Thirty-four percent of the local TCPs worked to pass or strengthen bans prohibiting self-service displays, resulting in the adoption of 25 ordinances between July 1998 and December 1999.

The MSA also did not result in the licensing of retailers to sell tobacco. Seventeen percent of the local TCPs worked to pass or strengthen licensing ordinances, resulting in the adoption of 11 ordinances between July 1998 and December 1999. In general, such ordinances both

require a license *and* include provisions for the suspension or revocation of the license if the merchant is repeatedly caught selling tobacco to minors.

TCP Activities and Type of TCP Agency

Table 3-D2 illustrates differences between three different types of local TCP agencies in the proportion of overall effort devoted to specific YA activities.[5] For most types of YA activities, LLAs, Regions, and Grantees put in equivalent amounts of effort. Grantees put more effort into local ordinance work and less effort promoting enforcement of YA laws than LLAs and Regions.

Table 3-D2
Percent of Local TCP Effort Devoted to
Specific YA Activities by Agency Type
(Due to rounding, percentages may not add up exactly to totals)

Activities	LLAs n=57	Regions n=10	Grantees n=57	All Agencies n=124
Educate Public about Social Sources of Tobacco	5.8%	5.6%	5.2%	5.6%
Pass or Strengthen Existing Local Ordinances	3.8%	2.4%	5.4%	4.5%
Reducing Illegal Sales in Retail Outlets				
Educate Merchants About YA Laws	4.3%	3.8%	4.5%	4.4%
Monitor Merchant Compliance/Purchase Surveys	3.8%	2.5%	3.0%	3.3%
Promote Enforcement of YA Laws	3.8%	4.7%	1.4%	2.8%
Other Activities to Reduce Youth Access	2.2%	3.1%	3.3%	2.8%
Overall Effort on Youth Access Activities	23.8%	22.1%	22.9%	23.3%

Source: Project Directors' Survey, 2000.

Public Awareness of YA Activities

In general, adults were two to three times more likely than youth to be aware of community YA activities. Overall, 15 percent of 8th-graders, 24 percent of 10th graders and 51 percent of adults had heard of two or more YA activities in 2000 (see Table 3-D3).[6]

- Adults were most likely to have heard about efforts to conduct compliance checks of tobacco retailers (61 percent), followed by awareness of local TCP efforts to stop adults from giving cigarettes to youth under 18 years of age (social sources; 47 percent) and awareness of signs, television (TV) ads or radio ads telling people to call 1-800-5-ASK 4 -ID if they see a retailer selling cigarettes to a young person (46 percent).

- 8th-graders and 10th-graders had equivalent levels of awareness of individual community activities. Slightly more than one-quarter of 8th-graders had heard about community activities to stop youth from getting cigarettes from friends or family members (social sources; 29 percent) and activities to stop stores from selling cigarettes to youth (retail sources; 26 percent). About one-quarter of 10th-graders had heard of each of the four types of local YA activities listed in Table 3-D3 (22 percent to 26 percent).

Table 3-D3
Awareness of Local Community YA Activities

YA Activity	8th-graders	10th-graders	Adults
Social Source Activities	29%	22%	47%
Retail Source Activities	26%	24%	n/a
Conducting Compliance Checks	n/a	22%	61%
STAKE Act (1-800-ASK-4-ID)	n/a	26%	46%
Aware of two or more activities	15%	24%	51%

Note: n/a = not asked of respondent type.
Source: School-based Youth Survey, 2000; Adult Telephone Survey, 2000.

Program Effectiveness: Relationships Between Local TCP Efforts and YA Outcomes

Policy

Policy data for all 471 city and 58 county jurisdictions in California were examined. During the Independent Evaluation, between July 1995 and December 1999, jurisdictions in 18 of the 58 counties passed YA-related ordinances or amendments that, at the time of passage, were stricter than state or federal YA laws.

- **New YA policies were passed in 48 percent of counties where LLAs reported YA-related policy initiation activity, compared to the 20 percent of counties where there was no reported policy initiation activity.**
- **YA-related policy passage was nearly four times more likely in counties where there was local program activity to initiate new YA policies than in counties where there was no such activity (OR = 3.7; 95 percent CI 1.14, 11.7).**

Consistent with the findings on policy passage related to CPTI and ETS, these data suggest that local TCP policy initiation activity is strongly related to YA policy passage.

Enforcement

As noted above, local TCPs put some of their efforts towards training YA enforcement officials to enforce state YA laws and in general, promoting YA enforcement. We examined the relationship between local TCP youth access efforts directed specifically at enforcement agencies and changes between 1998 and 2000 in five YA enforcement outcomes: issuing warnings to merchants, issuing warnings to minors, issuing citations to merchants, issuing citations to minors, and conducting compliance checks. Overall, county averages of effort were low (between one percent and seven percent of total effort), with the exception of Yuba county with 25 percent of total effort devoted to this area. The results indicated that local TCP effort to encourage law enforcement was not related to changes between 1998 and 2000 in issuing citations or warnings to merchants or minors, or in conducting compliance checks. However, similar to ETS findings, we found that **higher levels of local TCP collaboration with YA law enforcement agencies was associated with an:**

- **Increase in the number of citations agencies issued to merchants (correlation = .67, p<.01).**
- **Increase in the number of citations agencies issued to minors (correlation = .59, p<.05).**
- **Increase in the number of law enforcement agencies indicating they had conducted at least one sting operation in the past 12 months (correlation = .37; n.s.).**

On average, project directors indicated that they collaborated with law enforcement "sometimes" (mean = 3.0 on a 5-point scale), with 37 percent responding that they collaborated "often" or "very often". These results suggest that local TCPs should continue collaborative efforts with YA enforcement agencies and, where possible, increase their level of collaboration.

Cigarette Purchase Attempts by Youths

At the county level, measures of local TCP youth access efforts in 2000 were correlated with changes between 1998 and 2000 in youths' experiences in attempting to purchase cigarettes in the past 30 days. The two YA outcomes we examined were whether ID was requested and whether youth were refused sale of cigarettes.

- **Local TCP efforts to deter social sources of cigarettes were negatively correlated with the percent of 10th-grade youth who were asked for ID (correlation = -.59, p = .01). This negative correlation may indicate that counties that put more effort into social sources were putting less effort into deterring retail sales of cigarettes to underage youth.[7]**

- **Local TCP efforts to monitor illegal sales of cigarettes were moderately correlated with increases in the percent of 10th-grade youth who were refused sale of cigarettes (correlation = .34, n.s.).**
- **No relationships between local TCP youth access efforts and changes in cigarette purchase attempts among 8th-grade youth were found.**

Youths' Perceptions of the Accessibility of Cigarettes

The second set of outcomes we examined were three measures of youths' perceptions about how easy it is to get tobacco in general, from retail sources, and from social sources. Nearly all evaluation counties showed decreases in 8th- and 10th-grade youths' perceptions of the ease of getting cigarettes in general and from social and retail sources. However, the associations between local TCP YA efforts and youths' perceived ease of getting cigarettes were either negligible or un-interpretable.

Time Trends in Community-Level YA Outcomes

YA Policy Passage

A total of 53 city and county jurisdictions encompassing 16.5 percent of the California population passed YA policies during the Independent Evaluation period. These 53 jurisdictions were contained within the following 19 counties:

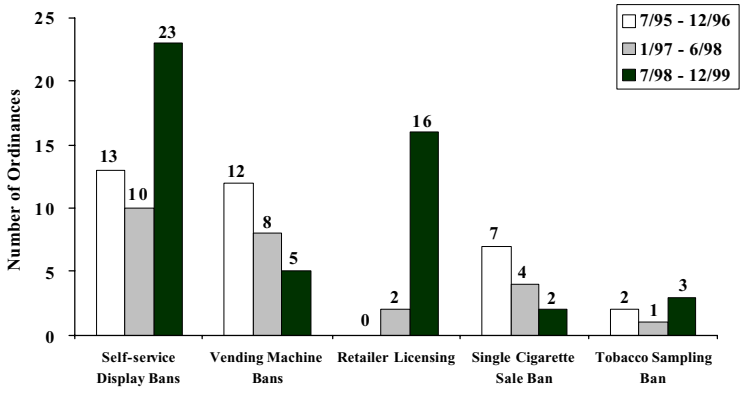
Contra Costa (Antioch, Danville, El Cerrito, Lafayette, Pinole, Pittsburg, Pleasant Hill, Richmond, San Ramon, Walnut Creek, Contra Costa County)
Kings (Avenal, Corcoran, Hanford)
Lassen (Lassen County)
Los Angeles (Pasadena, San Fernando)
Marin (Corte Madera, Novato, San Rafael)
Merced (Los Banos)
Orange (Laguna Hills)
San Bernardino (Redlands)
San Diego (Chula Vista, Coronado, El Cajon, Imperial Beach, Oceanside, San Diego, San Marcos, Vista)
San Francisco (city and county)
San Luis Obispo (San Luis Obispo)
San Mateo (Belmont, Colma, East Palo Alto, Millbrae, Redwood City, San Carlos, San Mateo, San Mateo County)
Santa Barbara (Buellton, Santa Barbara, Santa Barbara County)
Santa Clara (San Jose)
Santa Cruz (Santa Cruz, Scotts Valley, Santa Cruz County)
Siskiyou (Weed)
Tulare (Exeter, Tulare)
Ventura (Thousand Oaks)
Yolo (Yolo County)

Altogether, 108 new YA ordinance provisions were passed during the Independent Evaluation. Figure 3-D2 displays the number of specific types of YA ordinance provisions passed during each evaluation period.

Ordinance provisions banning retail self-service cigarette displays were passed most often (n = 46), followed by cigarette vending machine bans (n = 25), and licensing for retailers selling tobacco products (n = 18). In 2000, there were large increases in the number of provisions banning self-service displays and requiring retail licensing. As part of the STAKE Act, implemented in January 1996, state law prohibits the sale of tobacco products from vending machines except in places where minors are excluded by law. This state law may, in part, account for the steady decrease across evaluation periods in the number of jurisdictions that passed vending machine bans. The law does not prohibit local jurisdictions from enacting ordinances to completely ban tobacco vending machines.

Two types of provisions had low levels of passage, bans on sales of single cigarettes (n = 13) and bans on tobacco sampling (n = 6). Passage of single cigarette sales bans showed a steady decline over time, and passage of tobacco sampling bans was low at each evaluation period. These patterns are not surprising given the implementation of the MSA between state attorneys general and the tobacco industry in 1998. The minimum pack size provision of the MSA is only in effect through December 2001, however, which means local laws may still be needed in the long term.

Figure 3-D2
Specific Types of Local YA Ordinance Provisions Passed In Each Evaluation Period



Source: American Nonsmokers' Rights Foundation, 2000; In-house review of local ordinance documents, 2000.

Success Story: The local TCP project director survey data indicated that, compared to other counties, **Contra Costa County** had the highest percentage of overall effort (23 percent) devoted to passing and strengthening local ordinances related to youth access to tobacco

products in 2000. In December of 1998, the county passed a Tobacco-Free Youth Ordinance that included provisions to ban self-service displays and establish tobacco retailer licensing. Following the county Board of Supervisors' lead, 10 of Contra Costa's 19 cities passed similar Tobacco-Free Youth Ordinances. As a result of these efforts, over 60 percent of Contra Costa's population is covered by some of the strongest laws in the state to curb YA to tobacco. In addition, Contra Costa has set a legislative example for other counties to follow.

Table A-3 in the appendix provides more details on the type of YA ordinance activity by jurisdiction.

Enforcement of YA Policies

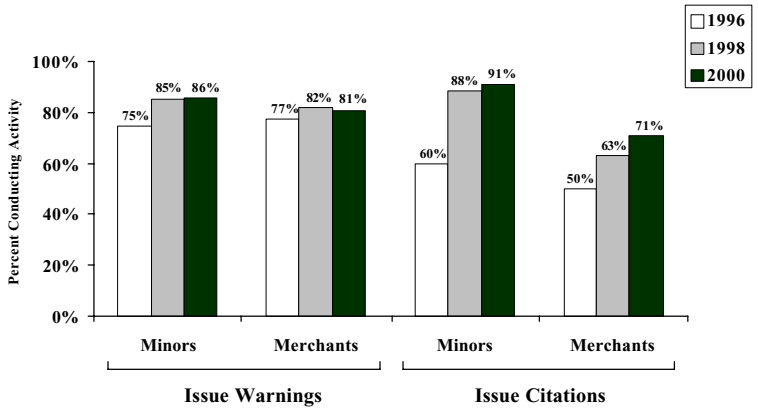
In California, under Penal Code 308 it is illegal to knowingly sell or give tobacco to someone under 18 years of age, and it is illegal for someone under 18 years of age to buy or possess tobacco. Local law enforcement agencies such as city police departments and county sheriffs are responsible for the enforcement of Penal Code 308. The Independent Evaluation surveyed all enforcement agencies in the 18 evaluation counties (N = 226).

Warnings and Citations

Figure 3-D3 shows that the vast majority of YA enforcement agencies have been active by issuing warnings and citations to both minors and merchants. Between 1996 and 2000, we observed no significant increases in the proportion of enforcement agencies that issued *warnings* to minors (from 75 percent to 86 percent) or merchants (from 77 percent to 81 percent).

Over time there has been a steep increase in the number of enforcement agencies that issued *citations* to both minors (from 60 percent to 91 percent, $p<.01$) and merchants (from 50 percent to 71 percent, $p<.01$), but the majority of the increase occurred between 1996 and 1998, with no significant increases between 1998 and 2000. Differences between urban and rural counties on warnings and citations for minors and merchants were also not statistically significant.[8]

Figure 3-D3
Percent of Agencies Issuing Warnings and Citations for Youth Access Violations by Minors and Merchants



Source: Youth Access Enforcement Survey, 1996, 1998, and 2000.

The level of enforcement of Penal Code 308 via citations appears to be increasing over time, but overall, more agencies are issuing citations to minors than to merchants. For example, in 2000, 91 percent of enforcement agencies reported issuing citations to minors compared to 71 percent that reported issuing citations to merchants.

Compliance Checks

Compliance checks are undercover buying attempts conducted by enforcement agencies to determine if stores selling tobacco are in compliance with Penal Code 308. Research over the past decade shows that unannounced compliance checks are the most effective activity to reduce the rate of illegal tobacco sales to minors (Altman, et al., 1999; Feighery, et al., 1991; Jason, et al. 1991). Independent Evaluation data from key opinion leaders has consistently indicated that they believe that compliance checks increase compliance with YA laws. In 2000, 85 percent of key opinion leaders agreed that compliance checks were an effective means of reducing youth access to tobacco.

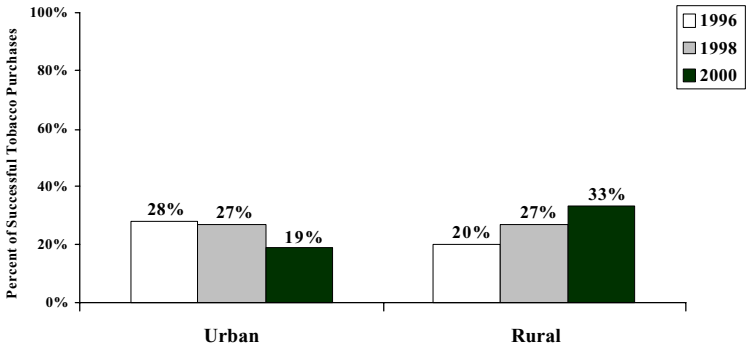
Between 1996 and 2000, the proportion of law enforcement agencies conducting compliance checks has been 30 percent to 40 percent, with 35 percent of agencies reporting they conducted at least one compliance check in 2000. Agencies that conducted at least one compliance check in 2000 estimated that 55 percent of tobacco outlets in their jurisdiction were visited, on average.

Prior to 2000, the U.S. Food and Drug Administration (FDA) conducted 2,000 to 4,000 compliance checks annually. After a Supreme Court ruling in March of 2000, the FDA no longer has the authority to conduct compliance checks in its efforts to regulate tobacco, as it

had done since 1996. This judicial ruling makes it more important for statewide TCP efforts to encourage law enforcement agencies to conduct compliance checks at the local level.

Buy Rates. In our 2000 law enforcement agency survey, we found that those agencies that conducted compliance checks reported that, on average, 19 percent of purchase attempts resulted in successful buys. This rate is higher than the 13 percent illegal tobacco sales rate for California reported in 2000 (Tobacco Control Section, 2000). In the Independent Evaluation data, the illegal tobacco sales rate for urban and rural counties showed different patterns. The buy rate in urban counties decreased from 28 percent in 1996 to 19 percent in 2000, whereas the buy rate increased in rural counties over time from 20 percent to 33 percent.[9] Figure 3-D4 shows that the estimate of successful buys was higher in rural areas than urban areas in 2000 ($p<.10$).

Figure 3-D4
Successful Youth Tobacco Purchases During
Sting Operations in Urban and Rural Counties



Note: Buy rates are estimates from agencies conducting at least one sting operation in the last 12 months.
Source: Youth Access Enforcement Survey, 1996, 1998, and 2000.

Success Story: In **Yuba County,** the local TCP focused 40 percent of its total tobacco control efforts on reducing tobacco availability to youth. Specifically, 25 percent of their effort focused on encouraging enforcement of Penal Code (PC) 308 with the goal of increasing compliance checks to three per year in Marysville, Yuba's largest incorporated city. The Independent Evaluation surveys of YA law enforcement agencies revealed that TCP's efforts seemed to have worked. The Marysville Police Department reported conducting three compliance checks in the last year. Their most recent compliance check operation resulted in just two successful buys out of 25 attempts, and they estimated that in the past 12 months they visited 98 percent of stores that sell tobacco in the city.

Predictors of YA Enforcement. Understanding what factors are related to higher levels of YA enforcement could provide important clues for intervention by local TCPs. The Independent Evaluation examined the relationship of the following set of six enforcement agency characteristics to the strongest type of YA enforcement, compliance checks: belief

that the YA issue is important, belief that enforcement of illegal sales is important, belief that enforcement of youth tobacco possession laws is important, perception that retailers are compliant, beliefs about the barriers to enforcement, and perceptions about the extent of collaboration with other groups on enforcing youth access policies.[10]

In 2000, as in 1998, agencies were more likely to have conducted compliance checks during the previous year if they reported:

- Lower perceived barriers to enforcement ($p<.01$).
- Higher collaboration with other individuals or groups concerned with enforcement of YA laws ($p<.01$).

Over the three evaluation periods, three barriers have consistently ranked as the top barriers to the enforcement of YA tobacco policies: limited staff (87 percent), insufficient budget (78 percent), and low priority in the community (75 percent). The majority of agencies (60 percent) did not rate insufficient community leadership as a barrier in any evaluation period.

Higher collaboration with other organizations was also found to be a significant predictor of ETS enforcement, as reported previously. Agencies reported higher collaboration in 1998 than 1996 with all queried groups (health departments, government officials, voluntary health organizations, educational organizations, merchant & business organizations, and tobacco prevention coalitions), but collaboration did not increase further between 1998 and 2000. In 2000, YA enforcement agencies reported collaborating most frequently with educational organizations such as local schools.

Perceived Effectiveness of Tobacco Licenses for Store Owners

At all three evaluation periods, adults and key opinion leaders were asked if they agreed that "Store owners should need a license to sell cigarettes just like alcoholic beverages." Since 1996, over 70 percent of adults and 65 percent of key opinion leaders have indicated that they agree or strongly agree with this statement. Similarly, over 70 percent of enforcement agencies have consistently rated tobacco merchant licensing as effective (ratings greater or equal to 4 on a 7 point scale). These percentages indicate continued strong support for tobacco merchant licensing in California communities. In addition, in 2000, over 90 percent of YA enforcement agencies rated suspension or revocation of license after repeated infractions as an effective strategy for reducing YA.

Time Trends in Individual-Level YA Outcomes

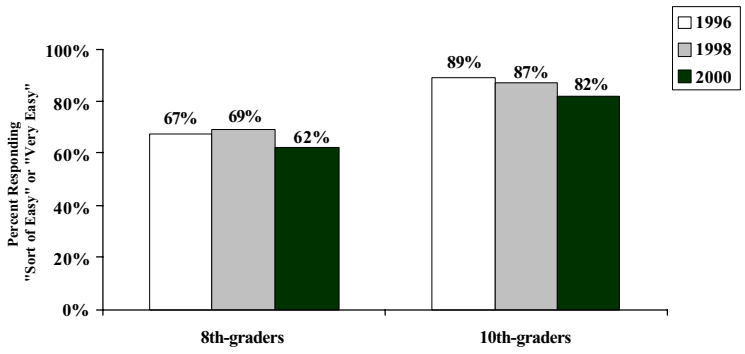
Ease of Getting Cigarettes

In 1996, 1998, and 2000, youth were asked how easy they thought it would be to obtain cigarettes. In 1998 and 2000, the set of questions about where youth got their tobacco was expanded to include the ease of obtaining cigarettes specifically from retail and social sources. The data show that by 2000, fewer youth believed it would be "sort of easy" or "very easy" to obtain cigarettes, in general and from retail or social sources, specifically.

- Between 1996 and 2000, there was a significant decrease in the percentage of 8th-and 10th-graders who thought cigarettes were easy to obtain, from 67 percent to 62 percent ($p < .05$) and from 89 percent to 82 percent ($p < .01$), respectively.
- Between 1998 and 2000, there was a significant decrease in the percentage of 8th- and 10th-graders who thought cigarettes were easy to obtain from *retail* sources from 38 percent to 27 percent ($p < .01$) and from 57 percent to 44 percent ($p < .01$), respectively.
- Between 1998 and 2000, there was a significant decrease in the percentage of 8th- and 10th-graders who thought cigarettes were easy to obtain from *social* sources, from 76 percent to 68 percent ($p < .01$) and from 89 percent to 85 percent ($p < .02$), respectively.

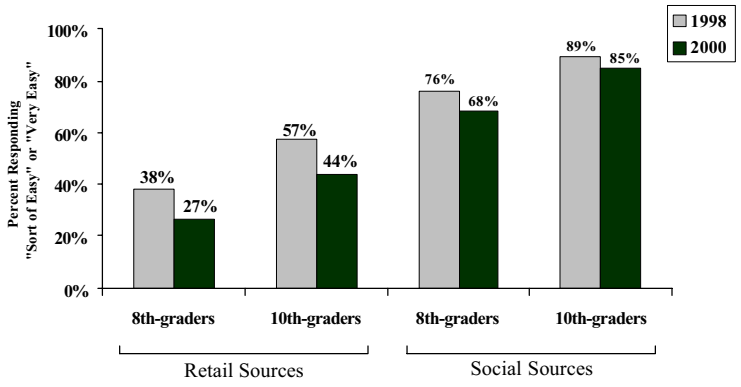
Analyses indicated no differences in urban vs. rural youths' perceptions about how easy it was to get cigarettes.

Figure 3-D5
Youths' Perception of the Ease of Obtaining Cigarettes from Any Source



Source: Youth School-based Survey, 1996, 1998, and 2000.

Figure 3-D6
Youths' Perception of the Ease of Obtaining Cigarettes from Retail and Social Sources



Source: Youth School-based Survey, 1998 and 2000.

Source of Cigarettes

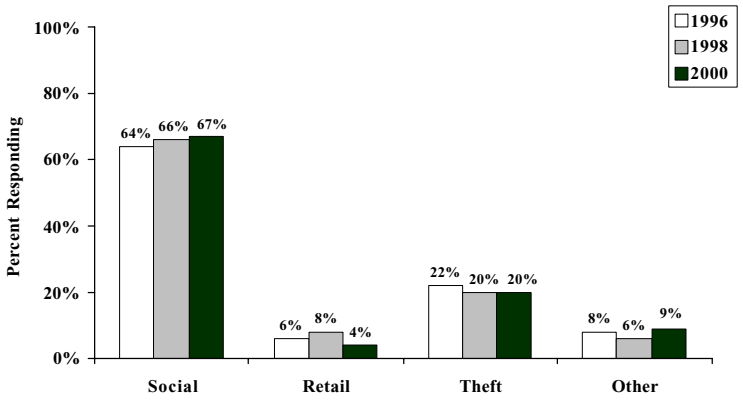
Retail Sources

Although fewer youth overall thought it was easy to obtain cigarettes from retail sources, the percentage of youth who said they were refused sale when they attempted to buy cigarettes in the past 30 days did not significantly increase from 1996 to 2000. In 1996, 33 percent of 8th-graders who attempted to buy were refused a sale of tobacco, and in 2000, 39 percent of 8th-graders were refused. For 10th-graders, 37 percent of those who attempted to buy tobacco were refused sale in 1996, and 41 percent were refused in 2000.

Marginally more 8th-graders were asked for ID when they attempted to buy cigarettes in the past 30 days in 2000 (28 percent) than in 1996 (20 percent, $p<.07$). Likewise, marginally more 10th-graders were asked for ID in 2000 (34 percent) than in 1996 (28 percent, $p<.08$).

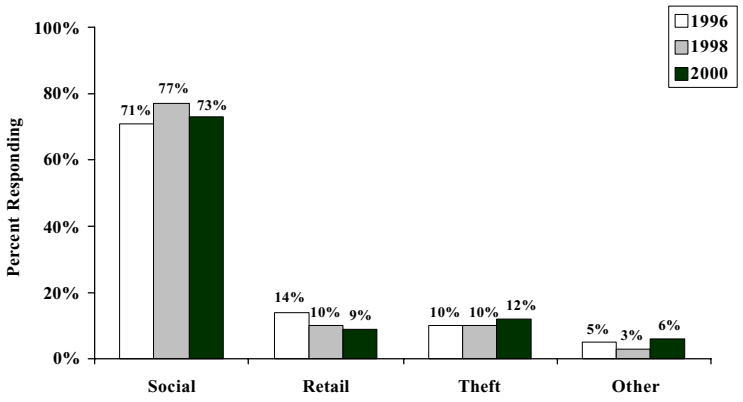
Figures 3-D7 and 3-D8 show where youth get their cigarettes. Over the three evaluation periods, 4-8 percent of 8th-graders and 9-14 percent of 10th-graders got their last cigarette from a retail source.

Figure 3-D7
Source of Last Cigarette for 8th-grade Youth



Source: Youth School-based Survey, 1996, 1998, and 2000

Figure 3-D8
Source of Last Cigarette for 10th-grade Youth



Source: Youth School-based Survey, 1996, 1998, and 2000

Social Sources

Figures 3-D7 and 3-D8 show that friends and family members continue to be the primary source of cigarettes for youth. In 2000, 67 percent of 8th-graders and 73 percent of

10th-graders reported that their last cigarette came from a social source. These percentages have changed little over the three evaluation periods.

Theft

Theft from stores or other smokers remains a significant source of cigarettes for 8th-graders, ranging from 20 to 22 percent across the three evaluation periods. About half as many 10th-graders get their cigarettes through theft, ranging from 10-12 percent.

Internet Purchases

The Internet provides a powerful interactive media channel for tobacco marketing that could pose significant public health risks, especially for youth (Center for Media Education, 1999). In the 2000 survey, 8th- and 10th-grade youth were asked where they purchased their last cigarette. Of those who had bought cigarettes, only 1.2 percent of 10th-graders and 0.5 percent of 8th-graders responded that they bought their last cigarette on the Internet.[11]

10th-graders were also asked if they have purchased cigarettes in the past year on the Internet. A total of 1.1 percent of all 10th graders and 3.0 percent of 10th grade smokers responded that they had purchased cigarettes on the Internet in the past year. Comparatively, less than one percent of adults (0.3 percent), who have ever smoked a whole cigarette, reported having ever purchased cigarettes on the Internet. These estimates indicate that the Internet does not yet appear to be a significant channel for California's underage youth to purchase cigarettes. This data provides an initial baseline estimate for comparison with future data on the use of the Internet for purchasing cigarettes.

Adult Provision of Cigarettes

Adults were asked if underage youth had asked them to buy cigarettes. Overall, seven percent of adults had been asked in the past year to buy cigarettes for a minor. This represents a 23 percent reduction from the nine percent rate found for adults in the 1998 evaluation ($p<.05$).

The type of adults whom youth approach to request cigarette purchases has not changed since 1998. **Younger adult smokers (age 18-19 years old) are the most likely to report that they have been asked by a minor to buy or give cigarettes**. While 32 percent of smokers aged 18-19 and 27 percent of smokers aged 20-24 have been asked to buy cigarettes by a minor, only nine percent of smokers age 35 or older have been asked.

In the 2000 evaluation, we asked adults if they had actually bought or given cigarettes to a minor when asked by the minor. Overall, 16 percent of adults did comply with a minor's request. This rate of providing cigarettes to minors was considerably higher, although not significantly so, among adult smokers (22 percent) compared to nonsmokers (12 percent) and in urban counties (18 percent) compared to rural counties (12 percent).

Summary

The data presented in this chapter indicate that California is making progress toward its goal of changing social norms about the acceptability of smoking, tobacco marketing, and tobacco advertising. **This chapter showed that local TCP efforts were positively associated with:**

- **Passage of tobacco-related policies in each of the three TCP priority areas**
- **Increases in enforcement of state ETS- and YA-related laws**
- **Decreases in the public's exposure to tobacco smoke and tobacco marketing**

In addition, public support for restrictions on smoking and tobacco advertising and marketing has grown over time. Youth perceptions of the tobacco industry have become more negative over time and youth have become more aware of the industry's advertising tactics.

Local Policy Passage

Over the entire period of the Independent Evaluation (July 1995 to December 1999), local TCP efforts appear to have contributed to the successful passage of local policies that restrict tobacco advertising and promotion, reduce the threat of exposure to ETS, and restrict tobacco industry tactics that are designed to make it easier for minors to gain access to tobacco products. During this time period, local jurisdictions across California's 58 counties passed 81 new and amended ordinance provisions to restrict CPTI, 32 provisions to restrict exposure to ETS in indoor and outdoor settings, and 108 provisions to restrict YA to tobacco. Effectiveness analyses indicated strong relationships between local TCP program activity in each priority area and policy passage in that priority area. Policy passage across the three priority areas ranged from being two and one-half to four times more likely in counties where LLAs reported policy initiation activity compared to counties where there was no reported policy initiation activity.

Enforcement of State ETS and YA Laws

Local TCP efforts to encourage enforcement of ETS laws also appeared to have been successful. For example, between 1998 and 2000, higher local TCP effort was moderately associated with increases in the number of citations ETS enforcement agencies issued to bars and other workplaces. By 2000, local TCPs were putting more than twice as much effort into promoting the smoke-free bar law than promoting provisions of the state's clean indoor air law governing restaurants and workplaces. In 2000, the efforts of ETS enforcement agencies mirrored those of the local TCPs; nearly twice as many agencies reported issuing citations for violations of the smoke-free law in bars than in restaurants and workplaces.

Collaboration between local TCPs and enforcement agencies appears to enhance enforcement. Between 1998 and 2000, ETS law enforcement agencies that reported higher levels of collaboration with local TCPs showed increases in their overall levels of enforcement of the smoke-free bar law. Similarly, YA law enforcement agencies that reported higher levels of collaboration with local TCPs had increases in the number of citations they issued to merchants who sold tobacco to minors and minors who had possession of tobacco.

Exposure to ETS and Tobacco Marketing

Between 1998 and 2000, local TCP efforts were related to decreases in adults' ETS exposure at work. This finding replicated the significant relationship found in the previous evaluation period. Although the previous Independent Evaluation report found a relationship between higher TCP efforts and decreases in ETS exposure at home, these findings were not replicated in the current evaluation period. However, ETS exposure at home appears to be decreasing; fewer nonsmoking adults reported exposure to ETS in their home in 2000 than in 1996. Likewise, both 8th- and 10th-grade youth reported significantly less exposure to ETS while in the same room with someone who was smoking cigarettes, and less exposure in cars in 2000 compared to 1996. Changes in ETS exposure for youth between 1998 and 2000 were not significantly related to local TCP effort, however.

TCP efforts may be reducing the extent of tobacco advertising in local communities. Between 1998 and 2000, higher levels of local TCP effort to restrict tobacco sponsorships at local events were associated with a decrease in the percentage of adults who saw tobacco advertising at sporting events, fairs, or community events.

Keeping Tobacco Out of the Hands of Minors

There are both encouraging and discouraging signs that youth access to tobacco has diminished. The percentage of youth that think it is easy to get cigarettes from either retail or social sources has decreased over time, but the percentages remain high. In 2000, over 60 percent of 8th-graders and over 80 percent of 10th-graders thought it was easy to get cigarettes. More youth reported that their identification was checked when they tried to purchase tobacco in 2000 than in 1996, but the percentage of youth, overall, who were actually able to make a purchase has not changed since 1996. Buy rates for rural youth have increased since 1996, but this was offset by a decrease in the buy rates for urban youth.

Data from the 2000 survey showed that friends and family members continue to be the primary source of cigarettes for youth, and the Internet was not a significant source of cigarettes for minors.

Support for Restricting Tobacco Use and Marketing

The majority of the California public supports continued efforts to extend ETS protections to outdoor public places where children and nonsmokers are exposed to tobacco smoke. In 2000, the majority of Californians believed that smoking was unacceptable in bus shelters, close to building entrances, in public places such as the zoo and college campuses, at outdoor restaurants, and at outdoor community events such as rodeos and fairs.

In addition, support for the newest statewide workplace ETS law, the smoke-free bar law, is large and has grown over time. There are signs that compliance with the law may be increasing even in areas that traditionally have had more resistance to the law. Fewer bar patrons in rural areas reported seeing smoking in bars in 2000 than in 1998.

The data suggested that bars that allow smoking may be losing money since 13 percent of all bar patrons said that they leave a bar when there is smoking.

The general public and key community opinion leaders continue to support restrictions on tobacco advertising and marketing, such as bans on tobacco advertisements in stores, reductions on the amount of smoking depicted in TV programs and films, and restrictions on tobacco industry sponsorship of community events. Opinion leaders voiced the highest support for policies to restrict advertising and marketing in venues aimed at young people.

Youth Perceptions of the Tobacco Industry and Marketing

Since 1996, the percentage of youth who believe that the tobacco industry employs harmful marketing tactics has increased significantly, and the percentage of youth that saw, owned or wanted tobacco promotional items has decreased significantly. The majority of youth believe that tobacco advertising and marketing influences them. Between 1996 to 2000, there were significant increases in the percentage of youth who believed that cigarette advertisements make young people want to start smoking, and advertising should not be allowed where youth will see it (e.g., at sports or community events, on billboards, and in magazines read by youth).

The summary above indicated a number of areas in which the local TCP efforts were associated with desired changes in tobacco control outcomes.

The California TCP has long viewed changing the social environment through passage of tobacco-related policy as critical to the overall success of the program. This chapter documented that local governments have been active in passing ordinances to counter pro-tobacco advertising and marketing, further restrict the public's exposure to ETS, and make it harder for youth to obtain tobacco. The Independent Evaluation found strong and significant relationships between local TCP efforts to initiate policy passage and the actual passage of policies in local jurisdictions. These data suggest that the strategies to pass policies employed by local TCPs are working.

The California TCP has also recognized that having a policy is no guarantee that the intended result will be achieved unless the policy is enforced. In the most recent evaluation period, local TCPs put a great deal of effort into promoting the smoke-free bar law through education of the public and business owners, training enforcement officials, and monitoring compliance with the law. Between 1998 and 2000, the percentage of ETS enforcement agencies that issued citations to bars increased, as did the average number of citations that agencies issued to bars. The Independent Evaluation found positive relationships between local TCP efforts and increases in the number of citations issued in bars between 1998 and 2000. These findings are encouraging and suggest that efforts to promote enforcement of the smoke-free bar law have achieved their objectives.

In addition to its focus on changing the social environment through policy and enforcement, the California TCP also seeks to change how individuals view tobacco issues, and to reduce tobacco use and exposure to ETS. The Independent Evaluation documented that public attitudes about

the tobacco industry have become more negative and public opinion has become more supportive of restrictions to smoking in outdoor public settings and restriction of tobacco advertising and marketing. Fewer youth own tobacco promotional items, more think it is hard to get cigarettes, and fewer report exposure to ETS indoors and in cars. Fewer adults are exposed to tobacco advertising, fewer are exposed to ETS in their homes, and fewer have seen violations of the smoke-free bar law. The efforts of local TCPs were associated with changes in several of these adult outcomes.

Within California, then, over the past four years, there have been significant increases in the number of local policies designed to protect the public from tobacco, increases in the extent of tobacco-related law enforcement, and shifts in the public's acceptance of tobacco as a normal part of everyday life. The Independent Evaluation analyzed the extent to which these changes were associated with higher levels of local program efforts and found a number of significant relationships. It is reasonable to presume that local program efforts contributed to many of these positive changes. However, due to the limitations of the evaluation design, it is not possible to conclude definitively that the local TCPs were instrumental in affecting the outcomes.

Endnotes–Chapter 3

Section A: Introduction

1. Throughout this chapter, the local TCP project director survey data we describe includes all 125 agencies from which we received surveys, unless noted otherwise, and is unweighted.
2. Questions about coalitions were not included in the 1998 project director survey. Independent sample t-tests were used to test for significant changes over time. Paired samples were not used because there was significant turnover in project directors and specific organizations that were funded between evaluation periods.
3. Each county in California was classified as urban or rural based on population density and percent rural area. Only those agencies working in a single county were included in urban/rural analyses (n=85). These included all the LLAs and a large proportion of grantees. Agencies working in more than one county were not included because we did not have the information needed to apportion accurately their "scores" to a given county. Out of 85 agencies, 35 were classified as urban and 50 as rural. The majority of counties have a low to moderate population density and moderate to high percent rural area.
4. Questions about collaboration could not be compared over time due to changes in the wording of the questions between 1996 and 2000.

Section B: Countering Pro-Tobacco Influences (CPTI)

1. All of the project director descriptive data were analyzed at the individual level, using all project director respondents statewide.
2. Ethnic networks are in the "Grantee" category.
3. In 2000, adults were asked about three types of CPTI activities and 10th-graders were asked about two types. 8th-graders were not asked about any CPTI activities. Changes in awareness of specific CPTI activities assessed both in 1998 and 2000 did not vary by more than four percentage points.
4. In 1998, 84 percent of key opinion leaders reported hearing about at least one CPTI activity and 36 percent reported participating in a related activity. Direct comparisons between 1998 and 2000 are not made since opinion leaders were asked about more types of CPTI programs in 1998.
5. See the Methods Appendix for details about how the policy data were analyzed.
6. Correlations between TCP efforts and adult and youth CPTI outcomes are reported only if they are greater than or equal to .20. When available, measures for specific types of CPTI efforts were used instead of an aggregate CPTI measure comprised of a variety of types of CPTI efforts (e.g., efforts to restrict tobacco industry sponsorship were correlated with support for a ban on tobacco sponsorship). All effectiveness analyses were conducted at the county level.
7. Since CPTI policies are relatively new and few, all types are included even if they are less strict than CPTI policies that exist at the state level or those included as part of the MSA.
8. 8th-graders were asked about tobacco advertising and marketing in only one venue, stores.

9. The percentage decrease in tobacco industry promotional item ownership for 8th-graders and adults, from 1996 to 2000, was two percent (n.s.).
10. 8th-graders were not asked about how often they see other young people wearing or using tobacco promotional items.
11. For opinion leaders, this was a insignificant change from 41 percent in 1996. Percentages for adults are based on 1998 survey data since adults were not asked this question in 2000.
12. This question was not asked of adults in 1996.
13. See the section on ETS in Chapter 3 for related information about smoking in bars and nightclubs.
14. This question was only asked of key opinion leaders in 2000.
15. This question was only asked of key opinion leaders in 2000.
16. This question was only asked of key opinion leaders in 2000

Section C: Reducing Exposure to Environmental Tobacco Smoke (ETS)

1. All of the project director descriptive data were analyzed at the individual level, using all project director respondents statewide.
2. See the following resources for additional information about the events surrounding the implementation of the smoke-free bar law:
   - Glantz, S. A. (2000). Effect of smokefree bar law on bar revenues in California. Tobacco Control, 9(1), 111-112.
   - Glantz, S. A., & Charlesworth, A. (1999). Tourism and hotel revenues before and after passage of smoke-free restaurant ordinances. JAMA, 281(20), 1911-1918.
   - Tobacco Control Section. Press Release: Bar Patrons in California Support Smoke-Free Bars. Sacramento, California - June 24, 1998.
   - Tobacco Control Section. (1998). A model for change: the California experience in tobacco control. Sacramento, California: Department of Health Services.
3. Ethnic networks are in the "Grantee" category.
4. Awareness data are reported for 2000 only because there was a change in items over time, although the trend suggests awareness is increasing for AB 13 and home and car policy efforts.
5. For data presentation in Figure 3-C2, counties were grouped into tertiles, i.e., three groups of six counties each were created (N=18). The six counties with the highest effort scores were grouped into the “higher effort” tertile, the six counties with the lowest effort scores were grouped into the “lower effort” tertile, and the remaining six counties were grouped into the “moderate effort” tertile.
6. The measure of exposure to ETS in environments outside of work and home was added in 2000 and was not present in the previous two surveys (1996 and 1998). The analysis, therefore, did not include a measure of change as the outcome variable.
7. The proportion of agencies active in enforcement and the average frequency of enforcement were derived from the same measure. On the ETS enforcement survey, agencies reported how often they conducted each of five enforcement activities, on seven-point scales ranging from never to very often. The five types of activities included responding to inquiries, responding to complaints, issuing warnings, issuing citations, and conducting compliance checks. The frequency of enforcement was calculated as a mean

of each scale. We calculated overall enforcement taking the mean score across the five types of enforcement. From each of the seven-point scales we identified agencies that had "never" used that type of enforcement to calculate the proportion of agencies active and not active in enforcement. For comparisons of urban and rural agencies, we analyzed data for the three stronger types of enforcement (warnings, citations, and compliance checks), in addition to the measure of overall enforcement.

8. The sample size (n) for each type of enforcement activity varies due to missing data. Ns range from 162 to 175.
9. For the 1996-2000 comparisons, we used the McNemar test with paired jurisdictions. The paired jurisdictions for the 1998-2000 comparisons were slightly different. Sample sizes varied slightly for each type of enforcement activity due to missing data. The significantly different comparisons for 1996-2000 were for inquiries (84 percent vs. 68 percent, n=133), complaints (84 percent vs. 67 percent, n=133), and warnings (65 percent vs. 55 percent, n=127). Most of the decrease in activity occurred between 1996 and 1998, since the proportion of agencies doing enforcement did not change significantly between 1998 and 2000.
10. For data presentation in Figure 3-C7, counties were grouped into tertiles, i.e., three groups of six counties each were created (N=18). The six counties with the highest levels of enforcement were grouped into the "higher enforcement" tertile, the six counties with the lowest levels of enforcement were grouped into the "lower enforcement" tertile, and the remaining six counties were grouped into the "moderate enforcement" tertile.
11. Data were analyzed by urban/rural designations rather than strata because of missing data from enforcement agencies in three small and medium-density counties (Lake, Plumas, Yuba).
12. Data for enforcement agencies, LLA project directors, and key opinion leaders represent only 15 of the 18 counties because there were no enforcement agency data from Lake, Plumas, and Yuba. Urban and rural enforcement agencies did not differ on the measures of importance of ETS enforcement and perceived compliance. There were no differences between project directors and key opinion leaders in urban and rural settings in opinions about enforcement and compliance.
13. Since the smoke-free bar law was not implemented until January 1998, there are no data before this time. In the law enforcement survey, agencies were asked about: (a) attitudes and actions related to "stand-alone bars and bars that are part of a restaurant," and (b) attitudes and actions related to "other indoor areas (restaurants and work places) that are part of AB 13/3037, excluding bars."
14. The sample size (n) for each type of enforcement activity varies due to missing data. Ns range from 164 to 175.
15. We used Cochran's Q test with paired jurisdictions in the 1998-2000 comparison, (24 percent vs. 34 percent, n=131).
16. We used t-tests for paired samples in this analysis (33 percent vs. 17 percent, n=159).
17. Means are estimates from cross-sections of the data at the two measurement time points. We used t-test with paired jurisdictions for the 1998-2000 statistical test (means =16.7 vs. 7.5 , n=14). The small sample size and wide variance in the number of citations issued may account for the insignificant finding.

18. Percentages are estimates from cross-sections of the data. We used Cochran's Q test with paired jurisdictions in the 1998-2000 comparison, (62 percent vs. 87 percent, n=9). The small sample size may account for the insignificant finding.
19. Urban and rural enforcement agencies did not differ on the measures of importance of ETS enforcement and perceived compliance. There were no differences between urban and rural project directors in their perceptions about how well bars comply. Rural key opinion leaders, however, thought that bars in their communities complied less well than did urban leaders.
20. We used multiple regression analysis to identify characteristics of enforcement agencies that were associated with higher levels of enforcement. The overall level of enforcement variable was created from an average of five types of enforcement activities (responding to inquiries and complaints, issuing warnings and citations, and conducting compliance checks), each of which was measured on a 7-point scale ranging from never to very often.
21. The paired t-test analysis was performed using paired jurisdictions. Sample sizes varied slightly for each agency type due to missing data. The sample size for each set of comparisons were approximately equal (n=~130). Since 1996, enforcement agencies significantly increased their collaboration with local health departments ($p<.01$). Between 1998 and 2000, agencies also significantly increased their collaboration with tobacco control coalitions ($p<.01$) and educational organizations ($p<.04$). Data were not available for tobacco control coalitions in 1996.
22. Among those youth who had some exposure to ETS indoors in the past week, the biggest shift for 8th-graders occurred for those who were exposed 1-2 days (from 23 percent in 1996 to 18 percent in 2000), while for 10th-graders the biggest shift occurred in those who were exposed 7 days a week (from 23 percent in 1996 to 15 percent in 2000).
23. Among those youth that had some exposure to ETS in cars in the past week, the only obvious shift appeared for 10th-graders exposed 1-2 days from 20 percent in 1996 to 7 percent in 2000.
24. Unlike the previous Independent Evaluation report [Independent Evaluation Consortium. (1998). Final Report of the Independent Evaluation of the California Tobacco Control Prevention and Education Program: Wave I Data, 1996-1997. Rockville, Maryland: The Gallup Organization], the current data presented on exposure to ETS at work includes *all* nonsmoking workers regardless of their beliefs about the presence or absence of a worksite policy. In the previous report, we provided data on the subset of workers who stated that their worksite had an official no-smoking policy, to make the data more comparable to CATS and CTS data. However, there are other differences in how the CATS and CTS, vs. the Independent Evaluation, measure worksite ETS exposure. For example, the former surveys measure exposure to smoke in *work areas* whereas the Independent Evaluation measures exposure to smoke *anywhere* in the workplace. These differences in question wording result in different findings that may be confusing to some readers. Therefore, we seek to clarify the findings by presenting only our own data.
25. In 2000, employees of worksites with five or more employees were not asked about the presence or absence of a worksite no-smoking policy and their perceptions of how many smokers break the rules.
26. Data on the number of smokers who break the rules are not available for small worksites without policies.

27. The question "If someone next to you were smoking and it bothered you, how easy or hard would it be to ask them to stop or move to another area?" was not asked in 1996 or 1998. It was added in 2000 to allow comparison with a similar question that was asked of youth.
28. The question, "The last time that you asked someone not to smoke, who was that person?" was not asked prior to 2000. The question, "The last time you asked someone not to smoke, what did they do?" was not asked prior to 2000.
29. Many of the questions about the smoke-free bar law were not asked until 1998 after the law had been implemented. When there is data from 1996, it is reported.

Section D: Reducing Youth Access (YA)

1. All of the project director descriptive data were analyzed at the individual level, using all project director respondents statewide.
2. The STAKE Act prohibits the sale or provision of tobacco products to persons under 18 years of age; requires the California Department of Health Services to enforce laws prohibiting the sale, distribution, or provision of tobacco products to minors; requires retailers to check identification of anyone attempting to buy tobacco who appears to be under 18 years of age; requires retailers to post a warning sign at each point of sale and vending machine (which advertises the 1-800-5-ASK-4-ID); and requires tobacco distributors or wholesalers to provide the California DHS the names and addresses of retailers and vending machines that they supply.
3. The STAKE Act also mandated that the state create a toll-free number that residents may use to report stores they believe are selling tobacco to minors (1-800-5-ASK-4-ID). Stores reported to this hotline have an increased risk of being visited for a sting by the California Food and Drug Branch, the agency responsible for enforcing the STAKE Act.

   The hotline received more calls in 1999 than 1998. The average number of calls received in January to June, 1999 was 218 per month, up from 42 calls per month from January to June, 1998. The higher level of calls in 1999 may stem from an increase in TCP media advertisements promoting the toll-free number.

   Data on the number of calls to the STAKE Act hotline were obtained from secondary archival resources. For the 1996 estimate, DHS staff calculated the frequency of calls to the hotline as recorded in records supplied by the telephone company. This method did not verify the calls (e.g., “prank” calls or wrong numbers were not eliminated) which may partly account for the extremely high average of 502 calls per month estimated for January to June 1996 (as reported in previous Independent Evaluation reports). By 1998, the California DHS created an internal record keeping method documenting the information obtained from voice mail messages. We accessed this database which is maintained by the California Food and Drug Branch to chronicle the calls.
4. See the CPTI section of Chapter 3 for a brief description of the MSA.
5. Ethnic networks are in the “Grantee” category.
6. Awareness data are reported for 2000 only because there was a change in items over time, although the trend suggests awareness of programs is increasing.
7. For example, the correlation between social sources efforts and efforts to monitor illegal retail sales of cigarettes to youth was $r = -.27$, $p=.28$.

8. We present proportions from the separate cross-sections of data and use the McNemar test for the statistical test of the change in proportions over time in the cohort of jurisdictions with complete data between assessment points (i.e., 1996 to 1998, 1998 to 2000). Sample sizes varied slightly for each type of enforcement activity due to missing data.
9. Means are estimates from cross-sections of data. Paired t-tests of agencies in both 1996 and 2000 indicated changes were statistically significant for urban counties ($p<.01$). Too few rural agencies responded to both surveys to conduct a pair-wise statistical test.
10. Results are from a logistic regression analysis that included six predictor variables listed in the chapter with stings as the dependent variable. The overall R^2 for this regression was small, suggesting that there are other variables, perhaps at the community level, that account for more of the variance in enforcement.
11. Questions regarding purchasing cigarettes on the Internet were asked in the 2000 IE survey only.

CHAPTER 4

THE STATEWIDE MEDIA CAMPAIGN

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THE STATEWIDE MEDIA CAMPAIGN

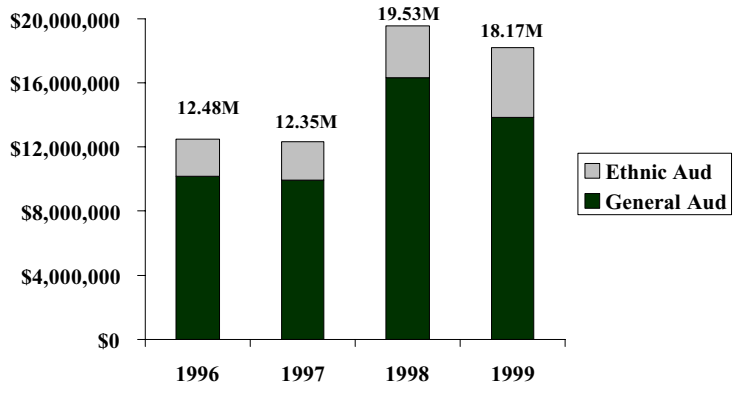
Introduction

The statewide media program has been a high-profile component of the California Tobacco Control Program (TCP) since 1990. Anti-tobacco messages are presented primarily through television (TV), outdoor ads, and radio. Most advertisements are part of the general audience campaign, developed for a diverse general public, with some ads placed in media outlets intended to reach youth. The ethnic audience campaign provides ads tailored specifically to reach and appeal to Latino, African American, Chinese, Vietnamese, and Korean adult and youth populations.

Program Effort

Prop 99 funds set aside for development and distribution of the media campaign campaign have fluctuated tremendously over the last four years (see Figure 4-1).[1] The amount available for distribution of anti-tobacco advertisements through TV, radio and print media dropped slightly between 1996 ($10.15 million for the general audience campaign, $2.33 for the ethnic audience campaigns) and 1997 ($9.92 million for the general audience, $2.42 million for ethnic audiences). In 1998, this amount increased substantially ($16.29 million for the general audience, $3.24 for ethnic audiences). Funding declined slightly, once again, in 1999 ($13.9 million for the general audience, $4.32 million for ethnic audiences), though it remained at a much higher level than in 1996 and 1997.

Figure 4-1
Expenditures for Distribution of TCP Media Advertisements, 1996 to 1999



Source: TCS Media Budgets 1996-1999

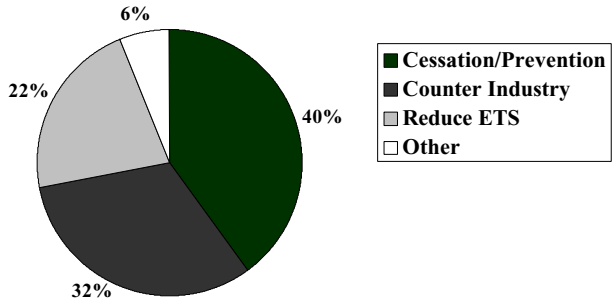
In Wave 3 of the Independent Evaluation (2000), the adult and youth surveys assessed exposure to the anti-tobacco advertising campaign run in the last quarter of 1998 and the first three-quarters of 1999. There were 50 general audience anti-tobacco media advertisements circulated by the TCP from July 1998 to August 1999, the year before the 2000 survey of adults and in-school youth.[2] These ads included:

- Twenty-two TV ads;
- Thirteen radio ads; and
- Fifteen print ads (almost all print ads were outdoor media such as billboards).

This constitutes a relatively large number of ads in circulation, compared to 1997 and early 1998, when there were 40 ads available for distribution. However, the high number was in part due to delays in the government approval process for the release of newly developed advertisements, leading to re-release of a large number of old ads (70 percent of the ad mix) to temporarily take the place of the ones awaiting approval.

The most frequent types of messages in the general audience campaign (40 percent of the ads run in 1998-99) were about prevention or cessation. Most of these messages (listed below) raised awareness of the risks of smoking and/or suggested ways to quit (see Figure 4-2).[2] The second most frequent type of message were those designed to raise awareness and promote critical thinking about tobacco industry influence (32 percent of the ads) with, for example, messages that the industry is deceptive (e.g., "Nicotine Soundbites" which shows a tape of tobacco executives testifying that tobacco is not addictive), that it tries to addict smokers (e.g., "Voicebox", in which "Debi" talks about her inability to quit, while smoking through a hole in her throat), and parodies of industry marketing strategies (e.g., "Boardroom" which depicts businessmen in a boardroom discussing the need to market to children). Advertisements about the harmful effects of environmental tobacco smoke (ETS); (22 percent of the ads) were designed to encourage smokers not to expose others to ETS and to raise awareness among smokers and non-smokers about the risks of ETS (e.g., "Baby Blocks", which shows a baby exposed to smoke, or "Waitress" which talks about the need for smoke-free bars). Often, the campaign ads contained multiple-messages (e.g., "Bob" with a western cowboy that parodies the use of cowboys in tobacco ads, providing a message about the need to quit).

Figure 4-2
Primary Messages in 1998-1999 Campaign Advertisements



Source: TCS Media Plans and Review of Ads

Youth, Adult, and Opinion Leader Exposure to the 1998-99 Statewide Media Campaign

The advertisements selected for assessment in the 2000 surveys were among the most widely circulated TV and billboard ads in 1998 and 1999, as well as two "historical ads" that were inserted to determine whether respondents had long-term exposure to the campaign:

- Nicotine Soundbites – tobacco industry executives swear before Congress that tobacco is not addictive;
- Memories – boy talks about memories of his father who died from smoking;
- Baby Blocks – father's smoke drifts around a baby using blocks to spell words like "asthma";
- "Voicebox" – woman named Debi smokes through a hole in her throat;
- Sad Boy – sad faced boy was hurt by the loss of his father to tobacco, shown with a number to call if you want to talk about similar losses;
- Cowboy Phone – cowboy uses his cell phone to call a 1-800 quit-line number;
- Victim Wife – sad man mourns the loss of his wife who died from ETS;
- Cowboy Limp – cowboy smokes a cigarette that bends downward;
- Hooked (historical ad) – businessman on dock pulls gasping fish out of water; and
- Boardroom (historical ad) – businessmen in meeting discuss ways to recruit 3000 new smokers each day.

Since very few radio ads were circulated at this time, radio ads were not assessed in the surveys. Four of the most widely circulated ads in 1998-99 were ads that had been used in the TCP media campaign in previous years. These included Oath, Baby Blocks, "Voicebox", and Victim Wife. Table 4-1 shows which ads were assessed in each survey.

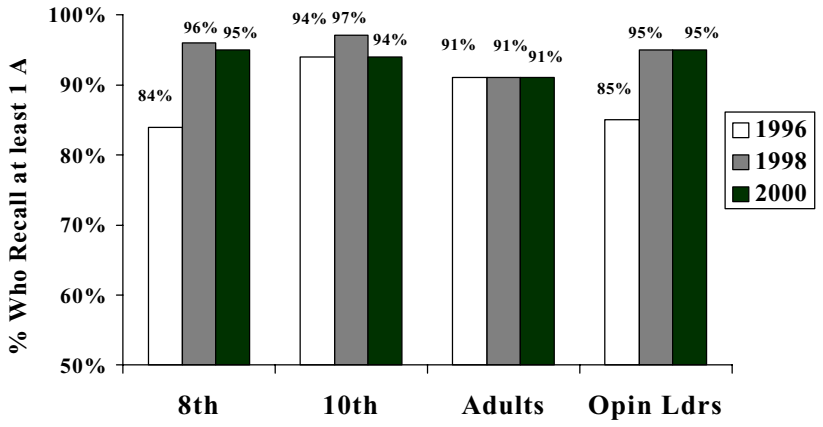
Table 4-1.
Statewide Media Ads Assessed in the 2000 Surveys

8th-Grade	10th & 12th-Grade	Adult	Opinion Leader
Nicotine Soundbites (TV)	Nicotine Soundbites (TV)	Nicotine Soundbites (TV)	Nicotine Soundbites (TV)
Memories (TV)	Memories (TV)	Memories (TV)	Memories (TV)
Baby Blocks (TV)	Baby Blocks (TV)	Baby Blocks (TV)	Baby Blocks (TV)
"Voicebox" (TV)	"Voicebox" (TV)	Victim Wife (TV)	Victim Wife (TV)
Hooked (TV)*	Sad Boy (BB)	Sad Boy (BB)	Sad Boy (BB)
	Cowboy Phone (BB)	Cowboy Phone (BB)	Cowboy Phone (BB)
	Hooked (TV)*	Cowboy Limp (BB)	
		Boardroom (TV)**	

Notes:
BB=Billboard ad
* Historical ad, last aired in May, 1996
** Historical ad, last aired in May, 1995

In 2000, more than nine out of ten youth and adults reported they had seen at least one of the California anti-tobacco advertisements in the previous 12 months. Among youth, this level of exposure was slightly lower than in 1998 ($p<.05$ for both 8th- and 10th-graders). The pattern, with an increase from 1996 to 1998, then a decrease from 1998 to 2000-matches the amount of money spent.) The highest recall was among 8th-grade youth and opinion leaders, with 95 percent exposed to at least one ad (Figure 4-3).[3]

Figure 4-3
Youth, Adult, and Opinion Leader Media Campaign Exposure in 1996, 1998, and 2000



Source: Adult Telephone and Opinion Leader Surveys, 1996, 1998, 2000; School-based Youth Surveys, 1996, 1998, 2000

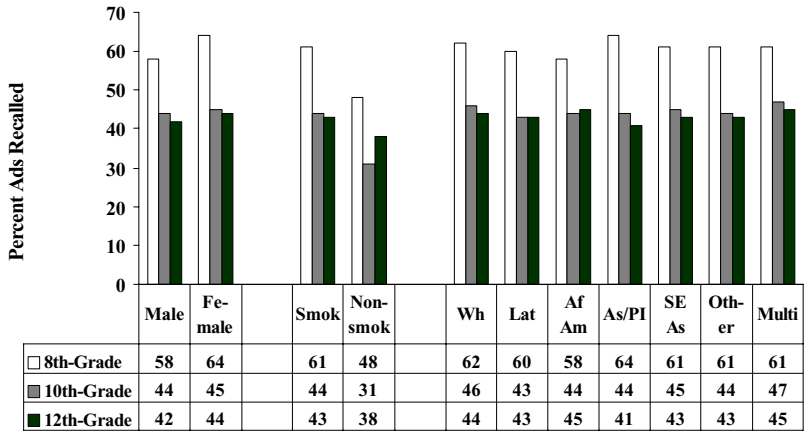
Although campaign exposure was very high, certain population groups had slightly lower exposure than other groups. This is worth noting if the TCP wants to improve access to the media or alternative programs among those with less exposure. The following statistics are based on the percent of general audience campaign ads recalled by youth and adults who speak some English, mostly English or only English at home (see Figures 4-4 and 4-5).[4] The non-English-speaking population were not surveyed regarding the ads targeting them.

Note that Figure 4-3 represents the percent of respondents that had partially-aided recall of at least one of the advertisements assessed in the adult, youth, and opinion leader surveys. In 2000, at least 90 percent of the ads were recalled by each group. In contrast, Figures 4-4 and 4-5 show the percent of advertisements recalled, from among the four to six current ads assessed in the youth and adult surveys in 2000.

Exposure of English-Speaking Youth to the General Audience Campaign

- Among English-speaking 8th-grade youth, the general audience media campaign had lower reach among males compared to females ($p<.05$) and non-smokers compared to those who had smoked in the past 30 days ($p<.001$).
- Among English-speaking 10th-grade youth, reach was lower among males than females, non-smokers than smokers, and Latinos and those of "other" ethnicities compared to multiracial and white youth (all p's $<.05$).
- Among English-speaking 12th-grade youth, exposure was lower among males than females ($p<.001$), and Latino or Asian/Pacific Island youth compared to multiracial youth ($p<.05$ for both comparisons).

Figure 4-4
Media Campaign Exposure Among Youth, by Gender, Smoking Status, and Ethnicity



	Male	Female	Smok	Non-smok	Wh	Lat	Af Am	As/PI	SE As	Other	Multi
8th-Grade	58	64	61	48	62	60	58	64	61	61	61
10th-Grade	44	45	44	31	46	43	44	44	45	44	47
12th-Grade	42	44	43	38	44	43	45	41	43	43	45

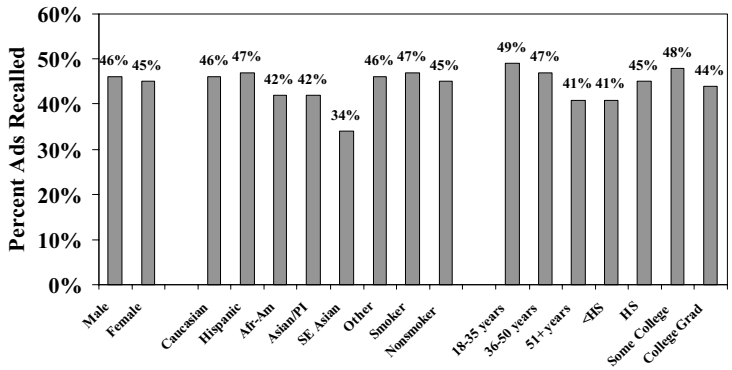
Source: School-based Youth Survey, 2000

Several of these groups, such as males and white youth, may be at higher risk of tobacco use compared to other groups, so additional outreach efforts may be required to bring local or statewide TCPs to them. Some of the current efforts to reach youth include distribution of ads through youth-oriented media, such as MTV. The California TCP implements tailored, language-specific media efforts for Latino and Asian American groups that were not assessed in the Independent Evaluation youth surveys. The ethnic audience campaigns are designed to reach and appeal to some of the groups, above, that have lower exposure to the general audience campaign.

Exposure of English-Speaking Adults to the General Audience Campaign

- There were no significant differences in media campaign exposure between males and females.
- Among ethnic groups, the lowest reach was among Southeast Asians compared to all other racial and ethnic groups ($p<.05$).
- Non-smokers had lower exposure than smokers ($p<.05$).
- The lowest exposure was among those 51 years or older and those between 36 and 50 years of age, compared to other age groups ($p<.05$).
- Those with fewer years of education had less exposure than among the other educational achievement groups ($p<.05$).

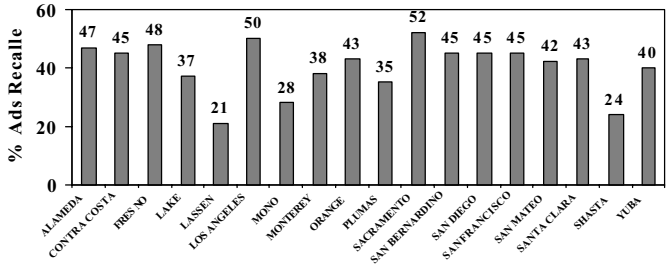
Figure 4-5
Media Campaign Exposure Among Adults, by Subgroups



Source: Adult telephone survey, 2000

The opportunity for exposure to the media campaign is partially related to geographic location. The percent of ads recalled by adults was lowest among the less densely populated counties in California, including Lassen, Shasta, Mono, and Plumas counties (see Figure 4-6). Lassen county receives primarily Nevada media. Adult recall of media ads was highest among those living in more densely populated counties with moderate-to-large media markets, including Sacramento, Los Angeles, Fresno, and Alameda counties.

Figure 4-6
County Variation in Media Campaign Exposure – Adults, 2000



Source: Adult Telephone Survey, 2000

Program Outcomes

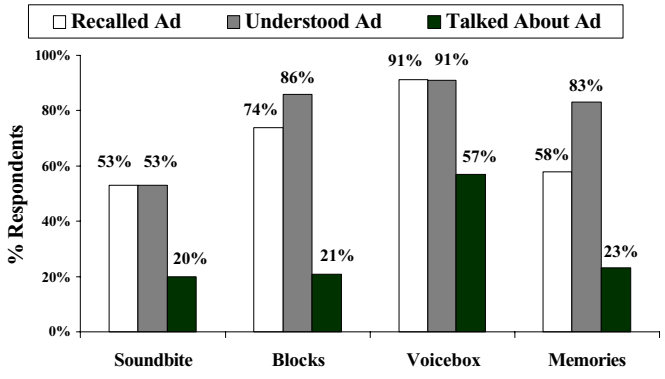
Responses to Individual Ads

Several types of reactions to the individual ads were measured, including partially-aided recall of having seen an ad described in the question, whether those who saw the ads could select the correct meaning from among two possible choices, whether the respondent talked with others about the ad, and whether, as a result of viewing the ad, the respondent thought about not smoking personally or about asking others not to smoke.

8th-Graders' Responses

The most widely seen and discussed ad was "Voicebox", also known as "Debi", seen by 91 percent of 8th-grade youth, followed by "Baby Blocks", seen by 74 percent (see Figure 4-7). Both of these ads were "re-runs" from previous years. The vast majority of 8th-graders (91 percent) who viewed "Voicebox", and 86 percent of those who viewed "Baby Blocks", identified the correct meaning of the ad. "Voicebox", as in a previous wave of this study, generated quite a bit of discussion with others; twice as much as the other ads assessed. This ad continues to be one of the strongest in the TCP mixture of ads.

Figure 4-7
8th-Grade Youths'
Responses to Each Ad



Source: School-based Youth Survey, 2000

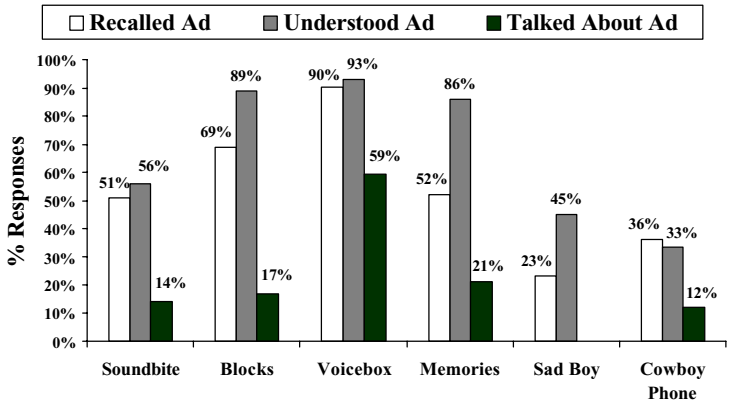
10th-Graders' Responses

Almost all of the 10th-grade students (90 percent) saw "Voicebox", and almost all of those (93 percent) identified the correct meaning of the ad (see Figure 4-8). Recall of "Baby Blocks" was second highest, with 69 percent recognizing it.

The two billboard ads resulted in the lowest recall, with 23 percent having seen "Sad Boy" and 36 percent having seen the image of a "Cowboy" using a cell phone to call a quit line.

The most talked about ad was "Voicebox", discussed by 59 percent of those who saw it. Few respondents reported discussing the other ads, ranging from 21 percent who talked with others about "Memories" to 12 percent who discussed the "Cowboy" billboard.

Figure 4- 8
10th-Grade Youths'
Responses to Each Ad



Source: School-based Youth Survey, 2000

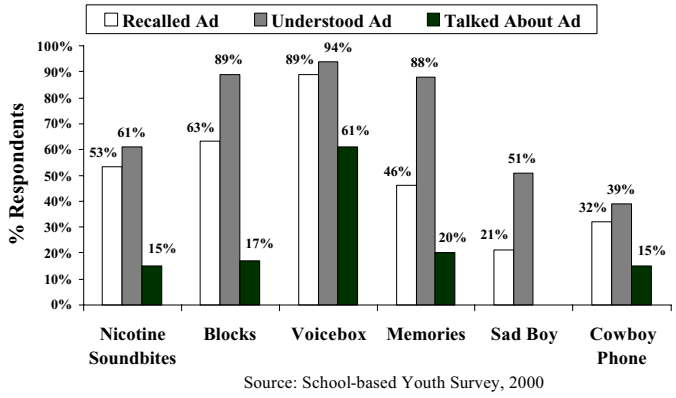
12th-Graders' Responses

The results for 12th-graders were similar to those for 10th-grade youth (see Figure 4-9). A large proportion of 12th -graders recalled seeing "Voicebox" (89 percent), and almost all of those who saw "Voicebox" recalled the correct meaning (94 percent), while 61 percent of those who saw it went on to talk with others about it. "Baby Blocks" was the second most widely viewed (69 percent), and the two billboard ads were the lowest both in recall and in follow-up discussion.

Overall, "Voicebox" was the most widely recalled, correctly understood and talked about ad among youth in 2000.

There were slight differences among the age groups in recall of ads, with the lowest recall rates among the 12th-grade youth.

Figure 4-9
12th-Grade Youths'
Responses to Each Ad



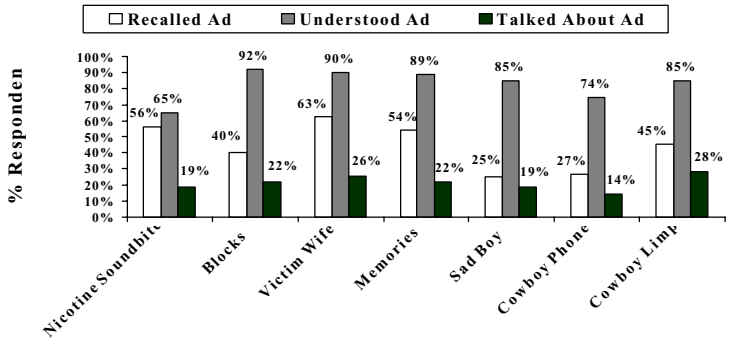
Source: School-based Youth Survey, 2000

Adults' Responses

Recall of almost all ads was lower among adults compared to youth. Most adults recalled "Victim Wife" (63 percent) followed by "Nicotine Soundbites" (56 percent) and "Memories" (54 percent) (see Figure 4-10). In contrast, the adults had a slightly better rate of identifying the correct meaning of the various ads, especially the two billboards (85 percent of those adults who saw "Sad Boy" and 74 percent of those who saw "Cowboy Cell Phone"). Billboard ads were not as well understood among the various youth respondents.

Adults were also slightly more likely than youth to discuss particular ads with others. For example, 19 percent of adults talked about "Nicotine Soundbites", compared to 14 percent of 10th-grade youth. However, none of the ads assessed in the adult survey elicited the high rate of discussion generated among youth by the "Voicebox" ad. The ad in the adult survey that generated the most discussion was "Cowboy Limp". This was a provocative ad that appears to have been successful at generating much more discussion than the other billboard ads, and slightly more than the TV ads.

Figure 4-10
Adult Responses to Each Ad



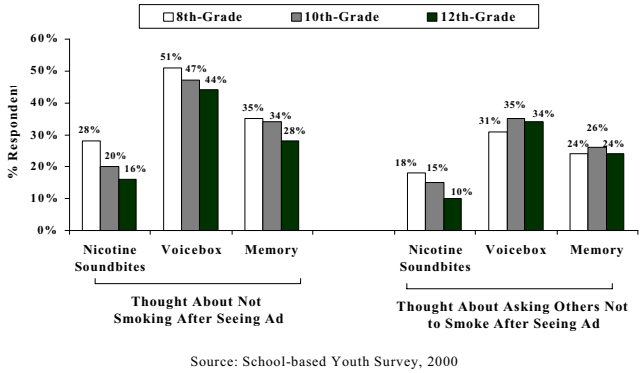
Source: Adult Telephone Survey, 2000

Youths' Thoughts as a Result of Viewing Ads

Youth were asked if they thought about not smoking or about asking others not to smoke as a result of seeing three ads assessed in the surveys (see Figure 4-12).[8] The strongest response in each age group was generated as a result of viewing "Voicebox" :

- **Almost half the youth thought about not smoking and almost one-third thought about asking others not to smoke, as a result of viewing "Voicebox".**
- Nicotine Soundbites had the lowest rates of respondents who thought about not smoking or asking others not to smoke after viewing the ad.

Figure 4-11
Youths' Thoughts
as a Result of Seeing TCP Ads



Source: School-based Youth Survey, 2000

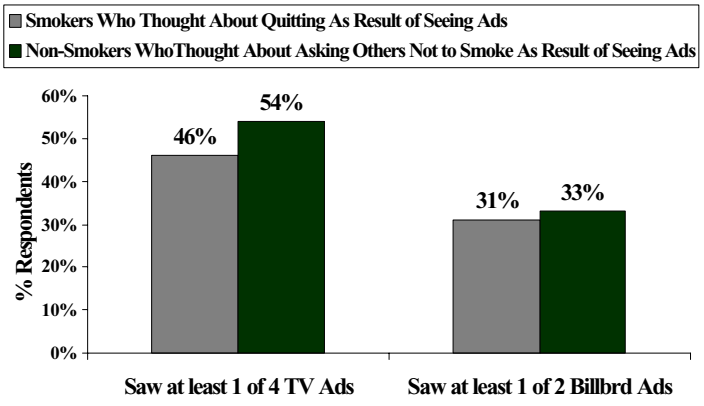
Adults' Thoughts as a Result of Viewing Ads

Adults were asked about their thoughts as a result of seeing at least one of the four TV ads and at least one of the two billboard ads assessed in the survey (see Figure 4-12).

- Almost half the smokers (46 percent) had thought about quitting as a result of seeing the TV ad(s), and almost one-third (31 percent) had thought about quitting as a result of seeing the billboard ads.
- Among non-smokers, over half (54 percent) had thought about asking others not to smoke as a result of the TV ads, while 33 percent did so after the billboard ads.

These results suggest that the TV ads were more successful at generating ideas about smoking-related behaviors than were billboards. Adults were also asked if they called the 1-800-4-A-Voice as a result of seeing ads in which it was featured (Memories, Sad Boy). Of those who saw the ads, .06 percent reported they called the telephone number. If we generalize this to the adult population in California in 2000, that would correspond to approximately 88,718 callers (California, 2001).

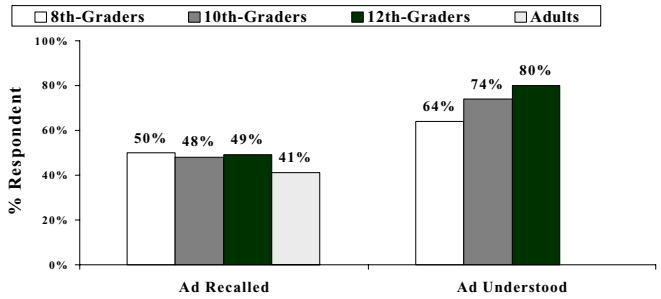
Figure 4-12
Adults' Thoughts as a Result of Seeing TCP Ads



Source: Adult Telephone Survey, 2000

Half the youth (50 percent of 8th-graders, 48 percent of 10th-graders, 49 percent of 12th-graders) and 41 percent of adults recalled seeing an ad that has been out of circulation for at least 3 years, suggesting the potential for the California anti-tobacco media campaign to have long-term impacts. Of the respondents who recalled seeing the ads, over half also correctly identified the meaning of ads, despite the years since they last saw them.

Figure 4-13
Youth and Adult Recall of Historical Campaign Ads



Sources: School-based Youth Surveys, 2000; Adult Telephone Survey, 2000. Note: "Hooked" was the youth historical ad, previously aired in 1996; Boardroom was the adult historical ad, previously aired in 1995. Understanding of these two ads was not assessed among adults.

Relationships Between Youth and Adult Exposure to the 1998-1999 Statewide Media Campaign and Tobacco-Related Outcomes

Countering Pro-Tobacco Influence

During 2000, exposure to the media campaign was associated with more negative attitudes toward the tobacco industry; and, among youth, greater support for policies that would restrict tobacco marketing.[5] Among those with higher validated recall of the media campaign (i.e., those who saw more ads and identified their correct meaning):

- **Youth and adults were more likely to have negative attitudes toward the tobacco industry** (correlation =.30 for 8th-graders, .23 for 10th-graders, .21 for 12th graders, and .21 for adults; p's < .01).
- **Youth were less likely to agree they would wear gear with tobacco logos** (correlation = -.07 for 8th-graders, -.04 for 10th-graders, -.05 for 12th-graders; p's<.01; not assessed among adults).
- **8th-grade youth were more likely to support policies restricting tobacco marketing** (correlation = .08 for 8th-graders p<.01; n.s. for older youth, and not measured for adults).

Youth who saw the ads and talked about the ads with others were more likely than those who did not talk about the ads to have negative attitudes toward the industry (correlation = .10 for 8th-graders, .13 for 10th-graders, .08 for 12th-graders, p's<.01). Youth and adults who discussed the ads were more likely to support policies restricting tobacco marketing (correlation = .08 for 8th- and 10th-graders, .06 for 12th-graders, .11 for adults, p's<.01.)

Reducing ETS

The media campaign was associated with personal actions and beliefs that could lead to reductions in ETS risk. Among those with higher validated recall of the media campaign:

- **Youth and adults were more likely to believe that ETS causes cancer** (correlation = .19 for 8th-graders, .20 for 10th-graders, .16 for 12th-graders, .19 for adults; p's<.01); and
- **Adults were more likely to ask others not to smoke** (correlation = .08, p<.01; not assessed in youth).

The association between media and recent ETS exposure was too low to report.[7]

The media campaign had positive outcomes related to adults' attitudes and beliefs about smoking in bars. Adults who had more exposure to the media campaign were more likely to:

- **Understand the reason for the restrictions on smoking in bars** (correlation = .10, p<.01);
- **Prefer smoke-free bars** (correlation = .05, p<.01); and
- **Not believe the law on smoking in bars should be overturned** (correlation = -.09, p<.01).

Respondents who had discussion about the ads they saw or heard were more likely to believe that ETS causes cancer than those who did not discuss the ads (correlation = .11 for 8th-graders and 10th-graders, .06 for 12th-graders, .09 for adults; p's<.01).[8]

Reducing Youth Access (YA) to Tobacco

During 1998-99, there were few ads that focused on reducing YA to tobacco. The association between media campaign exposure and youths' perceived access to tobacco was very low.[7]

Tobacco Use, Prevention and Cessation

The media campaign was associated with several positive outcomes related to beliefs about tobacco and susceptibility to tobacco use.

Among youth (not assessed for adults), more media exposure was associated with:

- **The belief that cigarettes are just as addictive as heroin** (correlation = .15 for 8th-graders, .19 for 10th-graders, .17 for 12th-graders; p's<.01).
- **More beliefs about the negative consequences of smoking** (correlation = .19 for 8th-graders, .18 for 10th-graders, .17 for 12th-graders; p's<.01).
- **Fewer beliefs about the positive consequences of smoking (**correlation = -.21 for 8th-graders, -.12 for 10th-graders, -.17 for 12th-graders; p's <.01).

- **The belief that cigars are just as harmful as cigarettes** (correlation = .13 for 8th-graders, .16 for 10th-graders, .12 for 12th-graders; p's<.01)
- **A stronger belief that they could refuse tobacco offers from friends** (correlation = .11 for 8th-graders, .15 for 10th graders, .19 for 12th graders; p<.01).
- **A perception of lower smoking prevalence among peers** (correlation = -.07 for 8th-graders, -.08 for 10th-graders, -.06 for 12th-graders; p's<.01).

Among 8th-graders, there was a small negative association between susceptibility to smoking[6] and exposure to the campaign (correlation = -.07, p<.01; n.s. for older youth).

Youth who saw and talked about the media ads were more likely (compared to those who did not talk about the ads) to believe that smoking has negative consequences, cigarettes are just as addictive as heroin, and cigars are just as harmful as cigarettes (p's<.01).

The media campaign was associated with slightly lower rates of tobacco use among youth and adults. Specifically, more media exposure was associated with:

- **Lower use of chewing tobacco in the past 30 days for youth** (correlation = -.09 for 8th-graders, -.05 for 12th-graders, and too low to report for 10th-graders and adults; all p's<.01);
- **Lower use of cigars in the past 30 days for youth** (correlation = -.10 for 8th-graders, -.07 for 10th-graders, all p's<.01; to low to report for 12th- graders and n.s. for adults)[8;] and
- **Lower 30-day cigarette smoking among 8th-grade youth** (correlation = -.06 for 8th-graders, p<.01; too low to report for older youth and adults)[8].

Among 10th- and 12th-grade youth who discussed the media ads with others, there were higher rates of attempts to quit smoking (correlation =.09, p's<.01; n.s. for 8th-grade youth and adults). Talking about the ads was not associated with smoking behaviors such as 30-day smoking.

In our analysis, the adult respondents' exposure to the media campaign was not significantly associated with calls to the help line among adults or with quit attempts among youth or adults. However, help line data reported by TCS indicates a large increase in calls when ads were run promoting the call number.

Relationships Between Opinion Leader Exposure to the 1998-1999 Statewide Media Campaign and Tobacco-Related Outcomes

Opinion leaders who saw or heard more of the statewide media campaign were more likely to:

- Support stronger policies countering pro-tobacco influence (correlation = .12, $p<.01$); and
- Participate in TCP priority area community activities (correlation =.12, $p<.01$).

If they discussed the ads with others, then these associations were stronger and, additionally, they were more likely to believe that tobacco advertising is a problem (correlation = .07, $p<.01$).

Summary

In 1999, the California media campaign circulated very few new ads and spent less money disseminating them compared to 1998. This drop in expenditures may have resulted in slightly lower exposure rates among youth, but not among adults, in 2000 compared to 1998. Overall exposure to the campaign was very high, with over 90 percent of respondents recalling at least one of the media campaign ads in 2000.

Among youth and adults who prefer to speak English, exposure to the general audience campaign was lowest among 10th-grade non-smokers, Southeast Asian adults, and respondents in lightly populated rural counties. These results support the need for continuation of the ethnically-focused campaigns for some of the Asian American population subgroups in California, and consideration of alternate programming (e.g., community-based programs or rural media replacements if budgets allow) in rural areas.

Recall of individual ads was highest among 8th-graders and lowest among adults, with 10th-graders and 12th-graders each having slightly lower recall rates than the younger age groups. Fewer radio ads were run in 1998-99 and older TV ads were rerun. One of these older ads, "Voicebox" (also known as "Debi") elicited as strong a response (i.e., recall and discussion with others) among youth in 2000 as in 1998. None of the adult ads elicited a response this strong, though the billboard featuring a cowboy with a limp cigarette generated more discussion than the other ads.

The media campaign was associated with stronger beliefs and attitudes about the tobacco industry, tobacco risks and ETS; stronger support for smoke-free bars; stronger beliefs among youth that they could refuse tobacco from others; and a stronger likelihood, among adults, that they would ask others not to smoke around them. Opinion leaders exposed to the campaign were more likely to support policies countering tobacco industry influence and, if they discussed the ads, they were more likely to participate in TCPs.

Half of the respondents recalled anti-tobacco campaign ads that had not been aired for at least three years prior to the survey. This finding suggests that the impact of some of the ads may be long-term. Many residents have had the potential to be exposed to the campaign for ten years. In a campaign as mature as California's—longer than most in the country—individual ads may

be fresh, but the messages behind them are probably familiar to most of the audience. One would expect to see less adoption of new attitudes and behaviors compared to a younger campaign in another state. Yet, even with the age of this media campaign and the difficulties of rolling out new campaign ads in 1999, the associations between campaign exposure and tobacco-related outcomes among youth and adults were very similar to those found in 1998. Though there appear to have been no negative outcomes related to this use of "old ads" from previous campaigns, it is not an ideal approach. There is a risk that continued use of older ads could lead to wear-out of these messages as well as to less attention and involvement on the part of long-time recipients of the statewide campaign.

The statewide media campaign has run for one decade in California. It has achieved extremely high levels of exposure, continues to generate ads that people notice and discuss, and continues to be associated with stronger anti-tobacco attitudes and beliefs and, to a lesser degree, fewer tobacco use behaviors, among the youth and adults reached by the campaign.

Endnotes – Chapter 4

1. Media budget figures represent Tobacco Control Section (TCS) estimates for the amount spent by the media contractors in 1996 – 99.

2. The count of ads was drawn from the media flight plans and ad rotation schedules for January 1998 to June 1999. The primary message and focus area was based on review of the ads by the evaluation team or discussion with the TCS media staff or contractors.

3. Recall of the 1999-00 media ads was measured by describing each ad, then asking if the respondent recalled seeing it in the last 12 months. Figure 4-3 provides the percentage of respondents who recall seeing at least one of the described ads.

4. To determine percentage of ads recalled, in figures 4-4 and 4-5, an index was constructed that summed up the number of ads recalled (excluding the historical ads) listed in Table 4-1 for each survey. The analysis of differential campaign exposure among population sub-groups of youth and adults was restricted to those who said they spoke only English, mostly English, or half-English at home. (i.e., Those who said they spoke mostly another language or only another language at home were excluded from the analysis.)

5. In these analyses, exposure to the media was measured by an index that summed the number of media spots that respondents accurately recalled seeing (TV and billboard) in the 2000 surveys (i.e., among those who recall the ad, they also are able to select the correct meaning for the ad from among two possible choices). Regression analyses were conducted to examine associations between media exposure and relevant outcomes, using individuals as the units of analysis and controlling for the random effects of county and sampling strata. These analyses were conducted separately for 8th-, 10th-, and 12th-grade youth, and adult and opinion leader respondents.

   Youth outcomes analyzed included:

   - Negative attitudes towards the tobacco industry;
   - Belief that ETS causes cancer;
   - Belief that cigarettes are as addictive as heroin;
   - Belief that cigars are a harmful as cigarettes;
   - Index of beliefs that tobacco has negative consequences;
   - Index of beliefs that tobacco has positive consequences;
   - Index of opinions about tobacco control policies;
   - Susceptibility to tobacco use;
   - Estimates of smoking prevalence among peers;
   - Likelihood of refusing a tobacco offer from a friend;
   - ETS exposure in the last seven days;
   - Past 30-day smoking;
   - Past 30 day use of chew tobacco;
   - Past 30 day use of cigars;

- Quit attempts in past year; and,
- Willingness to wear gear or merchandise with a tobacco logo on it.

Adult outcomes analyzed included:

- Negative attitudes towards the tobacco industry;
- Belief that ETS causes cancer;
- Belief that tobacco is an important issue;
- Index of opinions about tobacco control policies;
- Preference for smoke-free bars;
- Awareness of the reason for the bar ban;
- ETS exposure in the last seven days at home; and at work;
- Asking someone not to smoke;
- Past 30-day smoking;
- Past 30 day use of chew tobacco;
- Past 30 day cigar use;
- Calls to the smoker's helpline; and,
- Quit attempts in past year.

Opinion leader outcomes analyzed included:

- Belief that tobacco advertising is an important issue;
- Support for policies countering pro-tobacco influence;
- Participation in priority area community activities;
- Belief that TCS should focus on cessation vs. countering activities;
- Belief that TCS should focus on health hazards vs. countering the industry; and,
- Belief that TCS should focus on youth access vs. education.

6. Susceptibility to smoke is defined as the absence of a conscious decision not to smoke another cigarette, measured by whether the student had ever smoked a cigarette, and whether or not they intended to smoke in the future.

7. Correlations under .05 were not reported, though in some cases they were significant at $p<.05$.

8. In these analyses, an index was created by summing the number of ads that respondents talked about with a family member, friends or others, out of the total ads they saw. If they saw the ad, then they are asked if they talked about it. A score of 1 was assigned those who talked with someone, and 0 if they did not discuss the ad.

CHAPTER 5

SCHOOL-BASED TOBACCO USE PREVENTION EDUCATION (TUPE) PROGRAM

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SCHOOL-BASED TOBACCO USE PREVENTION EDUCATION (TUPE) PROGRAM

Introduction

Since the inception of the California Tobacco Control Program, an average of 27 percent of annual program funds have been appropriated to public schools for implementation of school-based Tobacco Use Prevention Education (TUPE) interventions. TUPE program components include: (a) entitlements to school districts for in-school tobacco education, intervention, and cessation programs in grades four through eight; (b) a competitive grants program for tobacco education and cessation programs in grades nine through 12; (c) a competitive grants program for innovative projects in grades four through 12; and (d) funding to county offices of education for technical assistance and support to districts. The TUPE program is administered by the California Department of Education (CDE).

Beginning in fiscal year 1994-1995, schools were required to design their tobacco programs based on the *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction*, published by the Centers for Disease Control and Prevention (CDC, 1994). The guidelines include the following:

1. Develop and enforce a school policy on tobacco use.
2. Provide instruction about the negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.
3. Provide tobacco-use instruction in kindergarten through 12th grade. The instruction should be especially intensive in junior high/middle school and should be reinforced in high school.
4. Provide program-specific training for teachers.
5. Involve parents or families in support of school-based tobacco use prevention programs.
6. Support cessation efforts among students and all staff who use tobacco.
7. Assess the tobacco use prevention program at regular intervals.

This chapter presents findings from the Independent Evaluation of the school-based TUPE program. Data from the first, second, and third waves of data collection overlapped with school years 1995-1996 to 1999-2000. The primary objectives of the chapter are to:

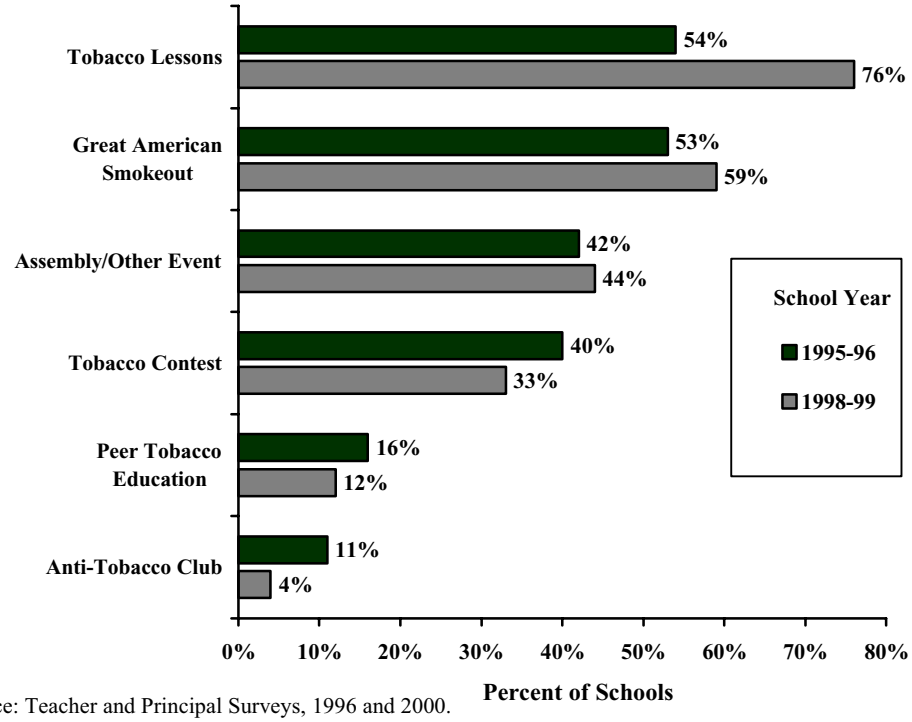
- Describe TUPE activities, programs, interventions, and policies implemented in a sample of schools in the 18 evaluation counties;
- Examine the extent to which schools implemented programs based on the 1994 CDC *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction;*
- Examine changes in program outcomes among 5th- and 8th-graders from 1996 (Wave 1) to 2000 (Wave 3), and the extent to which those changes are related to program exposure;
- And examine differences in program outcomes in high schools that received competitive TUPE grants relative to those that did not receive grants.

Program Implementation

Activities and Programs

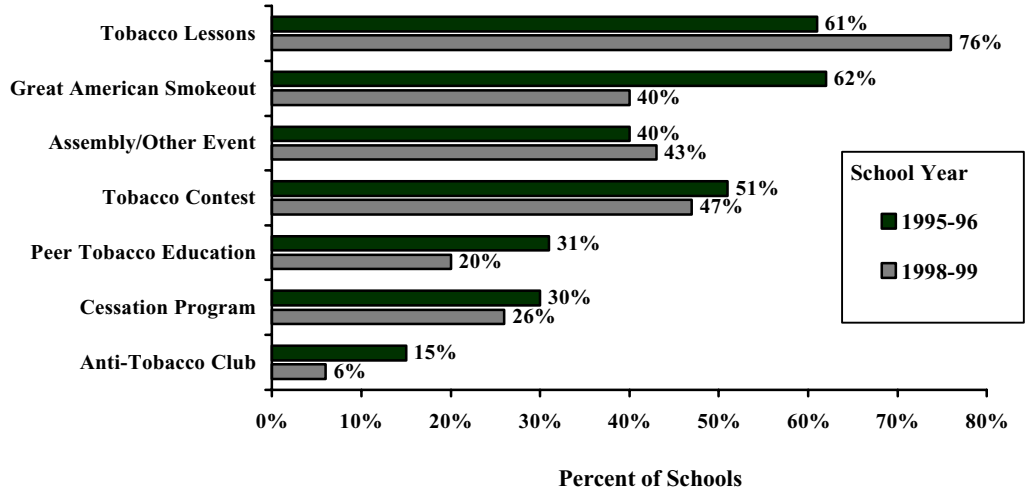
From school years 1995-96 to 1998-99, there was a significant increase in the mean percentage of 5th- grade teachers who taught at least one tobacco lesson (from 54 percent to 76 percent, p<.01). There was also a marginally significant increase in the percentage of 8th-grade science and health teachers who taught at least one tobacco lesson (from 61 percent to 76 percent).[1] (See Figures 5-1 and 5-2.) The prevalence of school-wide activities, such as Great American Smokeout events, tobacco-specific assemblies and contests, peer education programs, and anti-tobacco clubs did not change significantly for either elementary or middle/junior high schools, with the exception of a significant decrease in the prevalence of Great American Smokeout events implemented in middle/junior high schools (62 percent to 40 percent, p<.05).

Figure 5-1
Tobacco Use Prevention Education (TUPE)
Activities Implemented in Elementary Schools



Source: Teacher and Principal Surveys, 1996 and 2000.

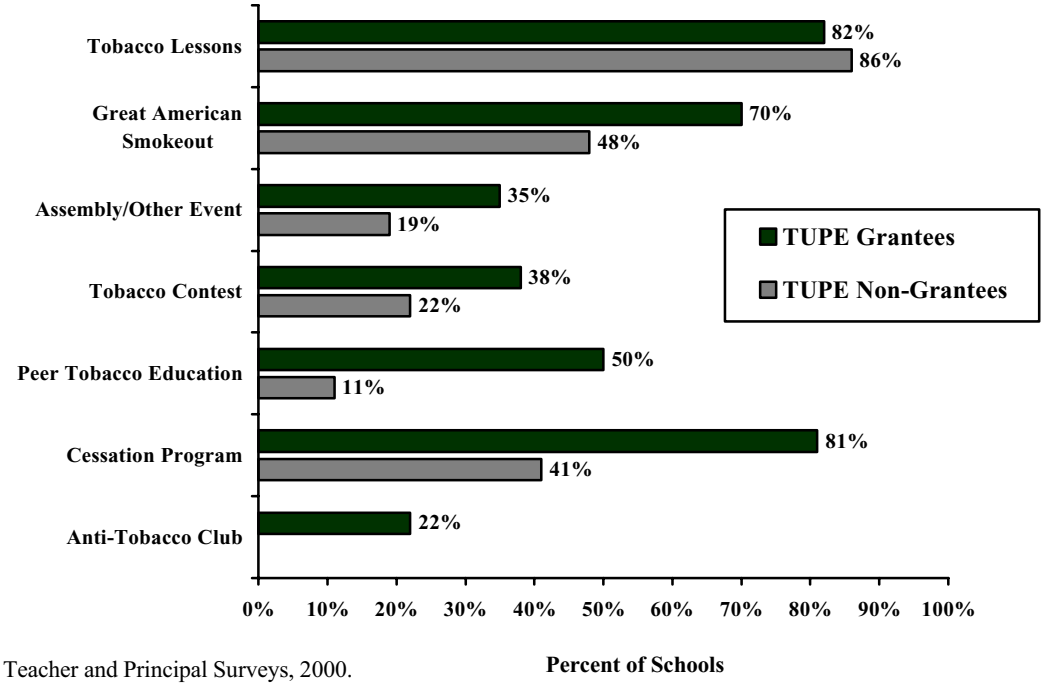
Figure 5-2
Tobacco Use Prevention Education (TUPE)
Activities Implemented in Middle/Junior High Schools



Source: Teacher and Principal Surveys, 1996 and 2000.

High schools that had TUPE grant funds in school year 1998-99 were more likely than non-grantee high schools to have a Great American Smokeout event (70 percent vs. 48 percent; p <.10), peer tobacco education program (50 percent vs. 11 percent; p <.05), tobacco cessation program (81 percent vs. 41 percent; p <.05), and anti-tobacco club (22 percent vs. 0 percent; p <.05). (See Figure 5-3.) However, the prevalence of tobacco lesson delivery by health and physical education teachers in grantee high schools did not differ significantly from that in non-grantee high schools (82 percent vs. 86 percent).[2]

Figure 5-3
Tobacco Use Prevention Education (TUPE)
Activities Implemented in Comprehensive High Schools
During School Year 1998-99



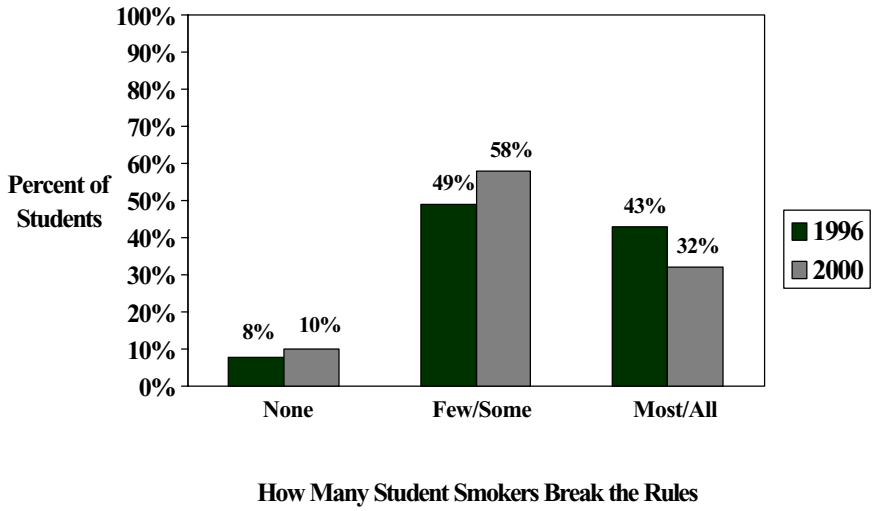
Source: Teacher and Principal Surveys, 2000.

Tobacco Prevention Curricula

Since 1998, when the United States Department of Education began requiring schools that receive Safe and Drug Free Schools and Communities funds to implement research-based programs and strategies for substance use prevention (United States Department of Education, 1998), a great deal of attention has been devoted to identification of research-based programs. Expert panels have been convened by the Centers for Substance Abuse Prevention, the Centers for Disease Control and Prevention, and the U.S. Department of Education to achieve a consensus on which programs are "exemplary" and "promising." In 2000, CDE published *Getting Results (Part II),* a guidebook for school personnel designed to assist them in selecting research-based tobacco prevention programs (California Department of Education, 2000).

In 2000, we asked school district TUPE coordinators about the specific tobacco prevention curricula that were being used in their districts. We found that the majority of districts were using programs that have *not* been identified as "exemplary" or "promising" by expert panels, such as: *Here's Looking at You, 2000* (60 percent); materials developed by the American Cancer Society (43 percent), American Heart Association (26 percent), and American Lung Association (26 percent); and various other programs, including locally developed materials (58 percent). Programs that have been endorsed by the experts were less common, such as *Project ALERT* (26 percent), *Life Skills Training* (15 percent), and *Quest - Skills for Adolescence* (19 percent).

Figure 5-4
10th-Grade Students' Perceptions of Violations of Tobacco-Free Policies at High Schools



Source: School-based Youth Survey, 1996 and 2000

Application of CDC Guidelines

Below we present evidence regarding the extent to which each of the *CDC Guidelines for School Health Programs to Prevent Tobacco Use and Addiction* was applied in our sample of California schools from 1995-96 to 1999-00.

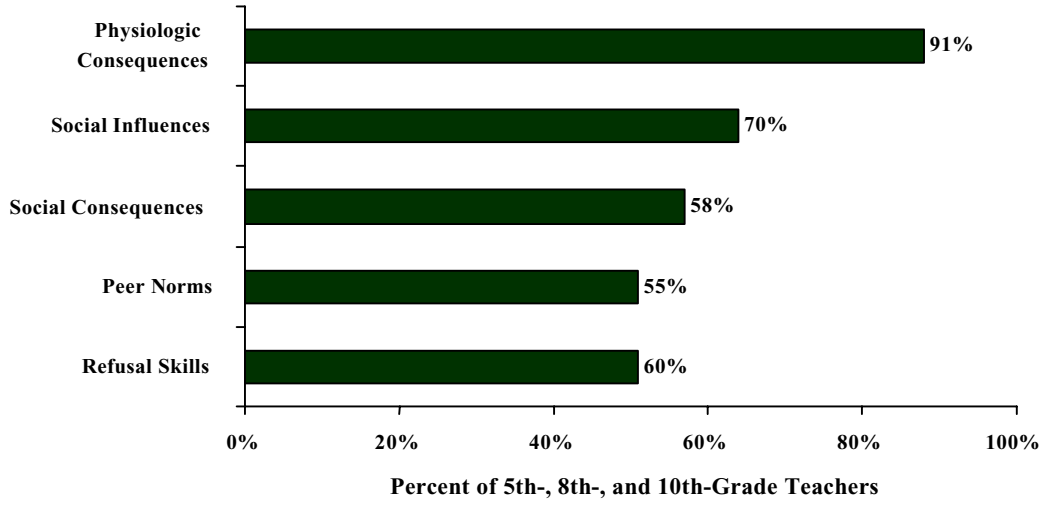
CDC Guideline #1: Develop and enforce a school policy on tobacco use.

As of February 1999, 97 percent of school districts in California had adopted a policy that prohibits the use of tobacco by all students, school staff, parents, and visitors in district-owned or leased buildings, on district grounds, and in district vehicles.[3] Effective July 1,

1995, the state legislature mandated that school districts are eligible to receive TUPE funds *only* if their school board has adopted such a policy.

From 1996 to 2000, there was a significant decrease in students' perceptions of violations of tobacco-free policies in high schools. As shown in Figure 5-4, in 2000, 10th-grade students were less likely to report that "most" or "all" student smokers violate the policy (32 percent) than in 1996 (43 percent).

Figure 5-5
Topics Teachers Addressed in Tobacco Lessons during 1998-99 and 1999-00



Source: Teacher Survey, 2000

From 1996 to 2000, there were no statistically significant changes in the prevalence of various consequences for student violations of tobacco-free policies as reported by middle/junior high and high school administrators. In 2000, as in 1996, the most prevalent consequences were suspending or expelling student violators (76 percent of middle/junior high schools and 56 percent of high schools) and calling students' parents (79 percent of middle/junior high schools and 77 percent of high schools). However, from 1996 to 2000 there were nonsignificant increases in the percentage of schools that referred student violators to tobacco cessation programs (from 24 percent to 26 percent for middle/junior high schools; from 40 percent to 55 percent for high schools) and required violators to attend "Saturday School" (from 7 percent to 14 percent for middle/junior high schools; from 26 percent to 32 percent for high schools).

CDC Guideline #2: Provide instruction about the negative physiologic and social consequences of tobacco use, social influences on tobacco use, peer norms regarding tobacco use, and refusal skills.

Among 5th-, 8th-, and 10th-grade teachers who provided tobacco lessons during school year 1998-99 and/or 1999-00, the vast majority (91 percent) provided instruction about the negative physiologic consequences of tobacco use. Instruction about psychosocial factors related to tobacco use, including social influences (70 percent), social consequences (58 percent), peer norms (55 percent), and refusal skills (60 percent) was less common (see Figure 5-5). Over the Independent Evaluation time period (1995-96 to 1999-00), the prevalence of instruction about the negative physiologic consequences of tobacco use decreased significantly (from 99 percent to 91 percent; $p < .01$). However, the prevalence of instruction about psychosocial factors did not change significantly.

CDC Guideline #3: Provide tobacco-use prevention education in kindergarten through 12th grade. This instruction should be especially intensive in middle/junior high school and should be reinforced in high school.

During school year 1998-99, the percentage of 8th-grade health and science teachers who delivered at least one tobacco lesson was the same as that for 5th-grade teachers (76 percent). Rates of lesson delivery were slightly higher among high school health and physical education teachers (84 percent) (see Figures 5-1 to 5-3). The mean amount of time that teachers reported spending on tobacco prevention lessons during the 1998-99 school year was 6.5 hours for 5th-grade teachers and 7.6 hours for 8th-grade health and science teachers. The majority of 5th-grade teachers (66 percent) and 8th-grade health and science teachers (79 percent) reported that their district *expected* them to teach tobacco prevention lessons as part of their curriculum.

Health and physical education teachers in both grantee and non-grantee high schools reported spending an average of 7.6 hours on tobacco prevention lessons during 1998-99. The proportion of health and physical education teachers in grantee high schools who believed they were *expected* to teach tobacco lessons (78 percent) was comparable to that in non-grantee high schools (75 percent).

During 1998-99, the prevalence of school-wide activities such as Great American Smokeout events and tobacco prevention assemblies was lower in middle/junior high schools (40 percent and 43 percent, respectively) than in elementary schools (59 percent and 44 percent, respectively) (see Figures 5-1 and 5-2).

CDC Guideline #4: Provide program-specific training for teachers.

In Spring 2000, only 23 percent of 5th-, 8th-, and 10th-grade teachers reported they had participated in tobacco-related in-service training during the previous five years, which is not significantly different from the proportion reported in 1996 (23 percent). **Among those teachers who had received tobacco-related training, 59 percent of 5th-grade teachers, 39 percent of 8th-grade teachers, and 26 percent of high school teachers had participated in *program-specific* training**. These rates are significantly higher than those reported in school year 1995-96 (11 percent of 5th-grade teachers and 17 percent of 8th- and 10th-grade teachers).

The vast majority of TUPE Coordinators (81 percent) reported that their district had sponsored or made available at least one in-service training on tobacco prevention education during school

year 1998-99. However, only 40 percent of those trainings were designed to train teachers to implement a specific tobacco prevention curriculum. The majority (60 percent) provided general information about tobacco use prevention.

CDC Guideline #5: Involve parents or families in support of school-based tobacco use prevention programs.

In 2000, as in 1996, teachers reported they made few efforts to involve parents in tobacco prevention education. **Among teachers who provided at least one tobacco lesson during the 1998-99 school year, 81 percent of 5th-grade teachers, 69 percent of 8th-grade teachers, and 92 percent of 10th-grade teachers had tried "not too much" or "not at all" to involve parents in tobacco education**.

CDC Guideline #6: Support cessation efforts among students and all staff who use tobacco.

As was shown in Figure 5-3, 81 percent of grantee and 41 percent of non-grantee high schools had an on-site cessation program for students in school years 1998-99 and 1999-00. However, in schools that had a program, regardless of TUPE grant status, only 33 percent of current student smokers were aware of the program. In those schools, 17 percent of teachers reported that they had referred at least one student to the program in the previous year. In the total sample of high schools, only 23 percent of teachers had received information about smoking cessation programs available to school staff.

CDC Guideline #7: Assess the tobacco use prevention program at regular intervals.

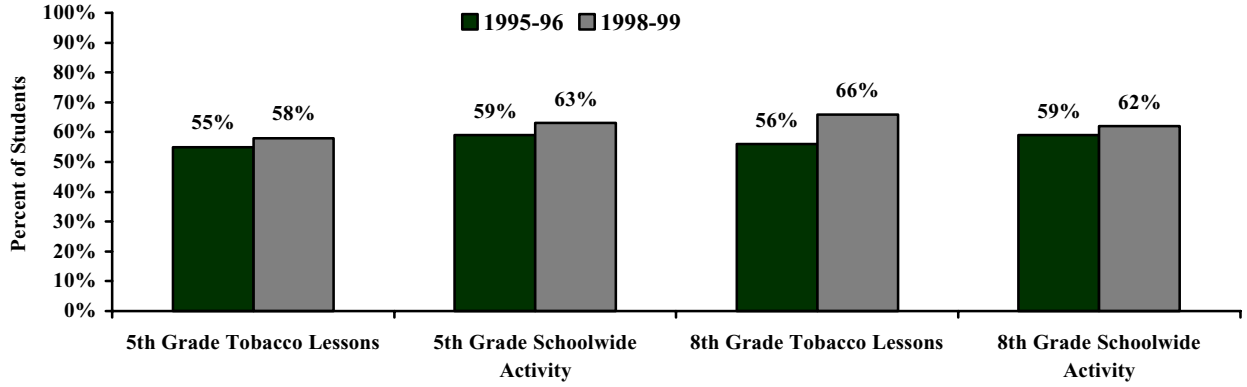
The majority of TUPE Coordinators (97 percent) reported that their school district had evaluated its TUPE program within the past five years. Among the districts that had conducted an evaluation, the most common evaluation methods were the California Healthy Kids Survey (87 percent) and staff surveys (27 percent).

TUPE Program Exposure

At each wave of the evaluation, students were asked whether they recalled being exposed to tobacco prevention lessons and school-wide activities including assemblies, contests, and Great American Smokeout events during the previous school year. **During the 1998-99 school year, more than one-half of 5th-graders (58 percent) and two-thirds of 8th-graders reported being exposed to at least one tobacco lesson**. Almost two-thirds of 5th- and 8th-graders (63 percent and 62 percent, respectively) were exposed to at least one tobacco-specific school-wide activity during 1998-99 (see Figure 5-6). Among 8th-graders, these rates of exposure to both tobacco prevention lessons and school-wide activities represent significant increases from the 1995-96 school year (p's<.01).

Among 10th-grade youth, 55 percent of students in TUPE grantee high schools and 52 percent of students in non-grantee high schools reported exposure to tobacco lessons during 1998-99, which was not a statistically significant difference. However, a significantly greater percentage of students in grantee high schools (60 percent) reported exposure to school-wide events than students in non-grantee high schools (38 percent; p <.01).

Figure 5-6
5th and 8th Grade Students' Exposure to TUPE Activities



Source: Youth School-based Survey, 1996 and 2000

Tobacco Use Prevalence[4]

From 1996 to 2000, the prevalence of 30-day cigarette smoking decreased significantly for 5th-graders (5.0 percent to 1.9 percent, p<.01), 8th-graders (16.9 percent to 11.7 percent, p<.01), and 10th-graders (27.8 percent to 19.5 percent, p<.01). (See Table 5-1.) These declines are consistent with findings from the Monitoring the Future study, which showed declines in 30-day smoking from 1996 to 2000 among 8th-graders (21.0 percent to 14.6 percent) and 10th-graders (30.4 percent to 23.9 percent) nationwide (Johnston, et al., 2000). In 2000, the Independent Evaluation also assessed smoking prevalence among 12th-graders. We found a 30-day cigarette smoking prevalence rate of 24.8 percent, which is lower than that of 12th-graders nationwide (31.4 percent).

From 1996 to 2000, the prevalence of lifetime and 30-day smokeless tobacco decreased significantly among 5th-graders (2.8 percent to 1.6 percent, and 2.4 percent to 0.8 percent, respectively; p's <.01) and 10th-graders (9.7 to 8.3 percent and 3.5 to 2.9 percent, respectively; p <.01 and p <.05, respectively). In addition, the lifetime prevalence of cigar use decreased among 8th-and 10th-graders (27.7 percent to 20 percent, and 38.7 percent to 30.6 percent, respectively; p's<.01).

In 2000, high school students were asked if they had ever tried a bidi, even a few puffs. More than one-fourth of 12th-graders (26.3 percent) and 13.9 percent of 10th-graders reported they had tried a bidi in their lifetime.

Table 5-1
Use of Tobacco among 5th-, 8th-, 10th-, and 12th-Grade Students, 1996, 1998, and 2000

	Cigarette Use		Smokeless Tobacco Use		Cigar Use		Bidi Use
	Lifetime	Past 30 Days	Lifetime	Past 30 Days	Lifetime	Past 30 Days	Lifetime
5th Grade							
1996	11.9%	5.0%	2.8%	2.4%	n/a	n/a	n/a
1998	10.2%	4.4%	2.9%	2.1%	7.7%	2.6%	n/a
2000	5.4%**	1.9%**	1.6%**	0.8%**	4.2%	1.2%	n/a
8th Grade							
1996	45.3%	16.9%	5.9%	3.1%	27.7%	n/a	n/a
1998	47.9%	17.1%	8.0%	4.2%	29.2%	10.8%	n/a
2000	37.2%**	11.7%**	6.1%	3.0%	20.0%**	6.2%	n/a
10th Grade							
1996	62.9%	27.8%	9.7%	3.5%	38.7%	n/a	n/a
1998	58.9%	21.8%	9.3%	2.9%	37.4%	13.2%	n/a
2000	54.1%**	19.5%**	8.3%**	2.9%*	30.6%**	9.0%	13.9%
12th Grade							
1996	n/a	n/a	n/a	N/a	n/a	n/a	n/a
1998	n/a	n/a	n/a	N/a	n/a	n/a	n/a
2000	64.7%	24.8%	12.1%	3.5%	39.2%	10.4%	26.3%

Notes: n/a = question not asked of respondent type.
* p<.05; ** p<.01.
Within each age group for each outcome variable, significance tests are 1996 vs. 2000; except where 1996 data were unavailable, they are 1998 vs. 2000.

Source: School-based Youth survey, 1996, 1998, and 2000

Tobacco Cessation

From 1996 to 2000, the percentage of 10th-grade smokers who had tried to quit smoking during the year prior to the survey increased significantly (46 percent to 68 percent, p<.01).[5] Among 8th-graders, there was a non-significant increase in the proportion of smokers who had tried to quit (53 percent to 55 percent). Among both 8th- and 10th-graders, the proportion of smokers who reported they would like to quit did not change significantly (47 percent to 41 percent for 8th-graders; 52 percent to 51 percent for 10th-graders).

Tobacco-Related Beliefs, Attitudes, Skills and Knowledge

From 1996 to 2000, there were significant improvements in students' beliefs about consequences of tobacco use, attitudes toward the tobacco industry, beliefs about social norms, refusal skills, and tobacco-related knowledge (see Table 5-2). Among 5th-, 8th-, and 10th-grade students, agreement with statements about the positive consequences of tobacco use decreased (p's <.01), while agreement with statements about the negative consequences of tobacco use increased (p's <.01).[6] For 5th-, 8th-, and 10th-graders, attitudes toward the tobacco industry became more negative (p <.05, p <.01, and p <.01, respectively),[7] the perceived prevalence of tobacco use among peers decreased (p <.05, p <.01, and p <.01, respectively), and perceived acceptance of peer tobacco use decreased (p's <.01). Also, there were increases in the proportion of students who believed that it would be easy to refuse an offer of tobacco from a friend (p's <.01). Finally, with the exception of the 5th-graders, there were increases in tobacco-related knowledge (p's <.01).[8]

Table 5-2
Tobacco-Related Beliefs, Attitudes, Skills, and Knowledge Among 5th-, 8th-, and 10th-Grade Students, 1996 and 2000

	5th-Grade Students		8th-Grade Students		10th-Grade Students	
	1996	2000	1996	2000	1996	2000
Beliefs about Consequences of Use[1]						
Positive	1.60	1.45**	1.73	1.69*	1.72	1.65**
Negative	3.65	3.73**	3.47	3.52*	3.27	3.42**
Negative Attitudes toward Tobacco Industry[1]	3.20	3.30*	3.36	3.47*	3.35	3.51**
Perceived Norms						
Peer Prevalence[2]	22.6%	19.3%*	43.4%	37.3%	50.6%	47.2%**
Peer Acceptance[3]	33.5%	23.1%**	70.9%	65.3%	84.0%	79.5%**
Tobacco Refusal Skills[4]	65.5%	79.2%**	76.0%	84.7%	87.4%	90.3%**
Tobacco Knowledge[5]	57.1%	56.1%**	55.1	60.1%	59.3%	65.5%**

Notes:
[1] 4-point scale; 1=no to 4=yes, definitely
[2] Mean perceived prevalence of tobacco use among peers (0-100%)
[3] Percentage believing that most peers think smoking is OK.
[4] Percentage who believe that it would be easy to say no to a friend's cigarette offer
[5] Mean percent correct (0-100%)
p<.05; ** p<.01

Source: School-based Youth Survey, 1996 and 2000

Program Effectiveness

Elementary and Junior High/Middle School Program

To investigate the effectiveness of the TUPE program in elementary and junior high/middle schools, we examined relationships between student self-reported program exposure during school years 1995-96 to 1998-99 (from the Wave 1-3 surveys), and changes in program outcomes from 1996 to 2000.[9] We found that among 5th-graders, greater exposure to the program over the four-year period was associated with changes in only one outcome indicator, beliefs about the negative consequences of tobacco use ($p < .05$). Among 8th-graders, greater program exposure was not significantly associated with changes in any of the outcome indicators.

High School Program

To investigate the effectiveness of the TUPE program in high schools, two sets of analyses were conducted. First, the cross-sectional analyses compared high schools that had a TUPE grant in 1998-99 and/or 1999-00 ("grantees") to high schools that did not have a TUPE grant ("non-grantees").[10] These comparisons showed no statistically significant differences between the two groups of schools on the outcome indicators.

Second, the longitudinal analyses were restricted to the 60 high schools that participated in the evaluation in all three waves (1996, 1998, and 2000).[11] Schools that had TUPE grants over the five-year period (1996 to 2000) were compared to all other high schools. One statistically significant difference between the two groups of schools was found, and the difference was in an unexpected direction. We expected to observe increases in negative attitudes toward the tobacco industry over time. We found that schools that received grants for the full five-year period showed no increases in negative attitudes towards the tobacco industry, whereas schools that received grants for a period of 0 to 5 years did show significant increases in students' attitudes ($p < .05$).

Summary

TUPE program implementation from school staff showed that there were significant increases in the rate of tobacco lesson delivery in elementary and junior high/middle schools from 1996 to 2000. For the most part, the prevalence of school-wide tobacco prevention activities, such as assemblies and special events, did not change over time. The literature on school-based tobacco prevention suggests that the delivery of tobacco lessons emphasizing psychosocial influences is critical to affecting changes in students' tobacco use behaviors (Glynn, 1989) and implementation of school-wide activities may be effective as supplements to tobacco instruction, but their effectiveness as stand-alone strategies is unproven. Although the CDC recommends that tobacco lessons include instruction about psychosocial factors related to tobacco, approximately one-third of California teachers did not address these topics in their lessons. The average amount of time that teachers spent on tobacco prevention lessons in the 1998-99 school year ranged from 6.5 hours in elementary schools to 7.6 hours in high schools. The majority of school districts reported using tobacco prevention curricula that have not been identified as

"exemplary" or "promising" by experts in the field. The vast majority of California school districts have a written policy prohibiting use of tobacco, and high school students' perceive that violations of the policy at their school have decreased since 1996.

From 1996 to 2000, the prevalence of 30-day cigarette smoking decreased significantly among 5th-, 8th-, and 10th-graders statewide. Consistent with these reductions, we found significant improvements in students' beliefs about the consequences of tobacco use, attitudes toward the tobacco industry, beliefs about social norms, refusal skills, and tobacco-related knowledge. However, program effectiveness analyses suggested that these positive changes were not significantly related to students' exposure to the TUPE program in elementary, junior high/middle, and high schools.

Endnotes—Chapter 5

1. Throughout this chapter, analyses of lesson delivery among 8th-grade teachers are restricted to those who taught health and/or science, which are the middle school subject areas in which tobacco lessons are typically taught. Analyses of delivery among 10th- and 12th-grade teachers in comprehensive high schools are restricted to those who taught health and/or physical education, which are the most common subject areas for tobacco instruction at the high school level. Analyses regarding activities implemented, topics addressed in lessons, school policies, training, parent involvement, and cessation efforts were conducted on the full sample of teachers (i.e., without regard to subjects they taught).
2. For this report, the sample of high schools is restricted to comprehensive high schools since we are comparing Waves 1 and 3. The Independent Evaluation included a sample of continuation high schools in Wave 2 only, which are discussed in the Wave 2 Interim Report (Independent Evaluation Consortium, 2001).
3. This information was provided by the California Department of Education (CDE). The total number of districts that were not certified as tobacco-free as of 2/19/99 (n=34), per the CDE Healthy Kids Office, was divided by the total number of districts in the state (n=997), to derive the proportion that are tobacco-free.
4. The measure of lifetime smoking is the proportion of youth who have ever tried a cigarette, even a few puffs. Thirty-day smoking is the proportion who smoked a cigarette on at least one day during the 30 days prior to the survey. Lifetime smokeless tobacco use is the proportion who have ever tried chewing tobacco or snuff. Thirty-day smokeless tobacco use is the proportion who used chewing tobacco or snuff on at least one day during the 30 days prior to the survey. Lifetime cigar use is the proportion who have ever tried a cigar, even a few puffs. Thirty-day cigar use is the proportion who have smoked a cigar on at least one day during the 30 days prior to the survey.
5. The analyses of quit rates were restricted to those students who reported they had smoked 100 cigarettes or more in their lifetime.
6. To test differences between 1996 and 2000, two indices, positive consequences (a mean of 5 items) and negative consequences (a mean of 5 items) were created for 8th- and 10^{th}-graders. For the 5th-graders, the positive consequences index was based on four items.
7. For the 8th- and 10th-graders, an index of negative attitudes toward the tobacco industry was created by averaging responses to three items. In the 5th-grade survey, only one item related to negative attitudes toward the industry was included.
8. The knowledge score was a sum of five items that assessed students' knowledge of the effects of smoking on asthma, the effects of smoking on pregnant women, whether teenagers are too young to get addicted to tobacco, whether there are other harmful substances in tobacco besides nicotine, and whether most young people smoke cigarettes.
9. Program exposure was measured with the same items in Waves 1-3 (1996, 1998, 2000). In each survey, students were asked whether they recalled at least one tobacco lesson, Great American Smoke-out event, school contest about tobacco use, and other school wide tobacco-specific assembly or event during the previous school year. For each wave, a

composite score was created which summed the number of activities/components recalled. A composite exposure index was created for each school, averaging the exposure scores for the three waves. Because most schools implemented more than one of the TUPE program activities/components, we could not investigate the independent effectiveness of each.

To determine program effectiveness in elementary and middle/junior high schools, we examined relationships between the program exposure index and changes in outcomes from 1996 to 2000. School-level difference scores (2000-1996) were created for the following outcome variables: lifetime and 30-day cigarette use, lifetime and 30-day smokeless tobacco use, lifetime cigar use, quit attempts in past year (8th-graders only), beliefs about positive consequences (index), beliefs about negative consequences (index), perceived acceptability of smoking among peers, perceived prevalence of smoking among peers, refusal self-efficacy, tobacco-related knowledge (summed score), and negative attitudes toward the tobacco industry (index). The effects of program exposure were tested with regression models, using school as the unit of analysis (i.e., school means), and controlling for the random effect of schools nested within counties.

10. During the 1998-99 and/or 1999-00 school years, a total of 54 high schools were grantees and 31 high schools were non-grantees. The outcome variables for the comparisons between the two groups of schools included: lifetime and 30-day cigarette use, lifetime and 30-day smokeless tobacco use, lifetime cigar use, quit attempts in past year, beliefs about positive consequences (index), beliefs about negative consequences (index), perceived acceptability of smoking among peers, perceived prevalence of smoking among peers, refusal self-efficacy, tobacco-related knowledge (summed score), and negative attitudes toward the tobacco industry (index). The cross-sectional (Wave 3) comparisons were conducted at both the individual student and school levels, showing the same pattern of results.

11. In the longitudinal analyses, the outcome indicators included the variables described above (in Note #10). Difference scores (2000-1996) were created for each outcome indicator at the school level (i.e., school means). Regression models were run to determine the effect of TUPE program status, with no co-variates. The first set of analyses compared 12 schools that had TUPE grants in all three waves to 48 schools that had other configurations of grant status (e.g., no grant, or a grant in two or three waves). A second set of analyses was conducted to compare four groups of schools: 1) those that had TUPE grants at two or three waves (n=27); 2) those that had a TUPE grant in Wave 3 only (n=11); 3) those that did not have a TUPE grant at any of the waves (n=14); and 4) those that had a TUPE grant in Wave 1 and then no grant in subsequent waves or those that had a grant in Wave 1, not in Wave 2, and then again in Wave 3 (n=8). The second set of analyses showed no significant differences between these four groups of schools.

CHAPTER 6

OVERALL IMPACT OF THE CALIFORNIA TOBACCO CONTROL PROGRAM

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OVERALL IMPACT OF THE CALIFORNIA TOBACCO CONTROL PROGRAM

The previous chapters in this report have described the effects of specific tobacco control program components--the media campaign, community programs, and school-based tobacco prevention--on the attitudes and behaviors of Californians. Each chapter has focused on a specific type of program component, examining the associations between program exposure and tobacco-related outcomes. This information provides an understanding about which specific program components have influenced which specific outcomes.

The California Tobacco Control Program (TCP) is a comprehensive, multifaceted program. The goal of the TCP is to change social norms—to make smoking less desirable, less acceptable, and less accessible (California Department of Health Services, 1998). Therefore, California has implemented numerous tobacco control activities and strategies, all designed to reinforce the message that smoking is not a "normal" behavior in our society. Many Californians are exposed to more than one component of the TCP. Theoretically, if people are exposed to tobacco control messages through multiple program components, they will be more likely to internalize these messages and more likely to change their attitudes and behaviors. It is therefore important to examine the effectiveness of the TCP as a whole.

It is important to determine whether California youth and adults are actually receiving tobacco control messages through multiple components, as intended. If so, it is important to determine whether higher levels of program exposure result in larger social norm changes over time. It is also important to determine whether certain segments of the California population are not being reached by tobacco control messages, so that the program can be modified to reach these people.

In this chapter, we examine the effects of exposure to the TCP through the three main components: the statewide media campaign, community programs, and school programs. Instead of examining the effects of each program component separately, we created a composite measure to represent the number of different TCP components to which Californians were exposed. Exposure to each component was measured through a series of questions asking respondents to recall specific tobacco control programs, activities, and media spots. We compared the 18 evaluation counties based on the average number of TCP components recalled by the respondents in each county. We conducted statistical analyses to determine whether counties with higher TCP exposure showed greater changes in tobacco-related attitudes and behaviors.

Goals of This Chapter

1. To determine the average number of TCP components (media campaign, community programs, and school programs) to which California youth and adults were exposed.

2. To determine whether California youth and adults in specific demographic groups were exposed to more TCP components.

3. To determine whether a county's level of TCP exposure from 1998 to 2000 is associated with county-level changes in tobacco attitudes and behaviors from 1996 to 2000.

Measurement of Program Exposure

In our 1998 and 2000 youth and adult surveys, we asked respondents whether they recalled being exposed to specific programs and activities within the three components. The exposure measures differed slightly between 1998 and 2000 because different programs were implemented in different years. Table 6-1 shows the programs, activities, and media spots assessed on the surveys.

Table 6-1.
Tobacco Control Programs and Activities from the Three Components

Component	Youth	Adults
School	Tobacco prevention lessons Tobacco-specific guest speakers Tobacco-specific assemblies/events Great American Smokeout/Smoke Scream	N/A
Media	Specific Ads: Voicebox Rain (1998 only) Baby Blocks Bob, I've Got Emphysema (1998 only) Cattle (1998 only) Thank-You Speech (1998 only) Toilets (1998 only) Nicotine Soundbites (2000 only) Memories (father died of cancer; TV; 2000 only) Sad Boy (father died of cancer; billboard; 2000 only) Cowboy on cell phone (2000 only) *(Note. The Independent Evaluation survey measures exposure to the general-audience media campaign, not the ethnic-specific media campaigns.)*	Specific Ads: Voicebox (1998 only) Rain (1998 only) Baby Blocks Bob, I've Got Emphysema (1998 only) Chad, How Many? (1998 only) Waitress (1998 only) Nicotine Soundbites (2000 only) Memories (2000 only) Sad Boy (2000 only) Cowboy on Cell Phone (2000 only) Cowboy with Limp Cigarette (2000 only) *(Note. The Independent Evaluation survey measures exposure to the general-audience media campaign, not the ethnic-specific media campaigns.)*
Community	Compliance checks 1-800-5-ASK-4-ID Efforts to reduce tobacco sponsorship Efforts to pass laws restricting tobacco advertising in stores or on billboards Programs to prevent youth access from social sources Programs to prevent youth access from retail sources Smoking cessation programs Great American Smokeout (1998 only) World No-Tobacco Day (1998 only) STAKE Act Merchant Education program (1998 only) Operation Storefront (1998 only) Efforts to encourage people to establish home/car no-smoking policies (1998 only) Efforts to educate people about ETS (2000 only) Efforts to enforce ban on smoking in restaurants and workplaces (2000 only) Efforts to restrict smoking in outdoor places (2000 only)	Compliance checks 1-800-5-ASK-4-ID Operation Storefront Efforts to reduce tobacco sponsorship Efforts to pass laws restricting tobacco advertising in stores, billboards (1998), and sidewalks (2000) Efforts to encourage people to establish home/car no-smoking policies Programs to prevent youth access from social sources Efforts to make cigars seem less glamorous Efforts to enforce ban on smoking restrictions in restaurants and workplaces (1998) and bars (2000) Great American Smokeout (1998 only) World No-Tobacco Day (1998 only) STAKE Act merchant education programs (1998 only) Efforts to restrict smoking in outdoor places (2000 only) Efforts to educate people about ETS (2000 only)

TCP Exposure Measure

To measure the extent to which the TCP reached California residents through multiple program components, we created a measure called TCP Exposure. TCP Exposure represents the number of different TCP components each survey respondent recalled.

Using the list of TCP programs and activities above, we asked California adults and youth which TCP programs and activities they recalled. If a respondent recalled at least one program or activity from within a TCP component (at least one school program, at least one media spot, or at least one community program), that person was coded as having been exposed to the TCP via that component.

We then counted how many TCP components each respondent recalled. For youth, there are three components (school, community, and media). Therefore, youth could have been exposed to 0, 1, 2, or all 3 TCP components. For adults, there are only two components (community and media). Therefore, adults could have been exposed to 0, 1, or 2 TCP components.

For example, an adolescent may have seen the "Voicebox" media ad (a program from the media component) and also heard about the Great American Smokeout (a program from the community component). This adolescent recalled TCP activities from two of the three program components. This adolescent would receive a TCP exposure score of 2.

Within each county, we calculated the average number of TCP components the respondents in the county recalled. We then determined the association between the average number of TCP components recalled in each county and program outcomes.

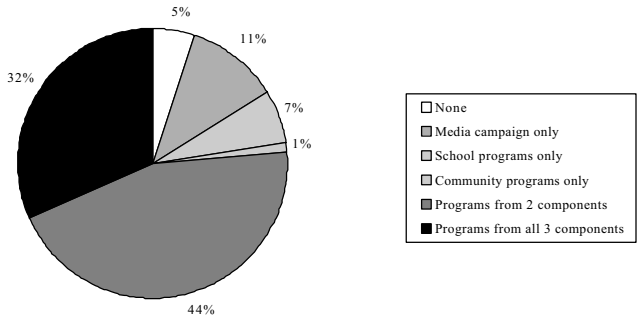
TCP Exposure	=	*The average number of TCP components (school, media, and/or community) recalled by respondents in each of the 18 evaluation counties.* *Youth TCP exposure scores can range from 0 to 3.* *Adult TCP exposure scores can range from 0 to 2.*

For each county, we calculated two TCP exposure scores: one for the 1998 survey and one for the 2000 survey. In the analyses of change over time, we used the average of the 1998 and 2000 TCP Exposure scores for each county to provide a more stable, long-term estimate of Californians' exposure to the TCP over a period of several years. In the cross-sectional analyses of the 2000 data (such as the analyses of which Californians were exposed to the TCP through multiple program components in 2000), we used the 2000 TCP exposure score to obtain the most recent estimate of TCP exposure within each county.

Recall of Exposure to Tobacco Control Programs Among Youth and Adults

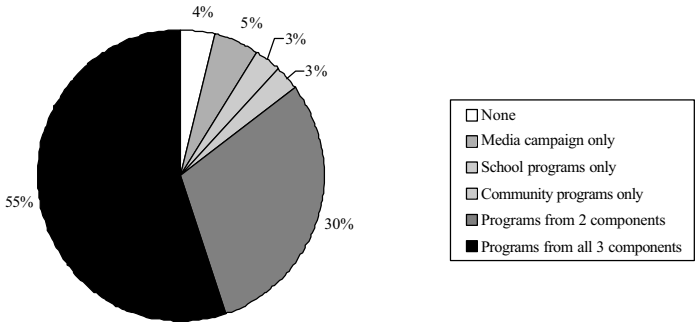
Most Californians were exposed to tobacco control messages through at least two different components. Figures 6-1 through 6-3 show the percent of California youth and adults who recalled exposure to the tobacco control media campaign, community programs, and school programs in the 2000 survey. Only 5 percent of 8th-graders, 4 percent of 10th-graders, and 1 percent of adults did not report exposure to any programs. Most Californians (76 percent of 8th-graders, 85 percent of 10th-graders, and 79 percent of adults) were exposed to tobacco control programs through two or more components.

Figure 6-1
8th-Grade Youths' Exposure to the Tobacco Control Program Components - 2000



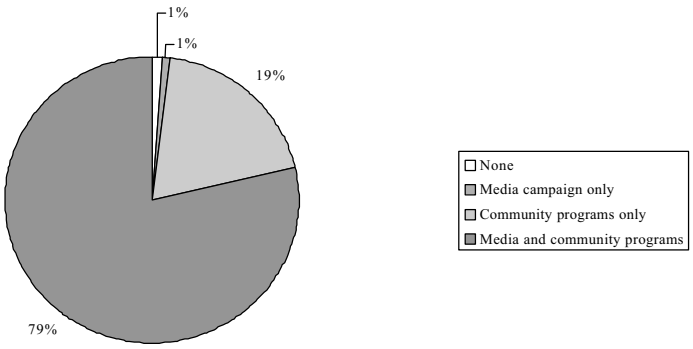
Source: School-based Youth Survey, 2000

Figure 6-2
10th-Grade Youths' Exposure to the Tobacco Control Program Components - 2000



Source: School-based Youth Survey, 2000

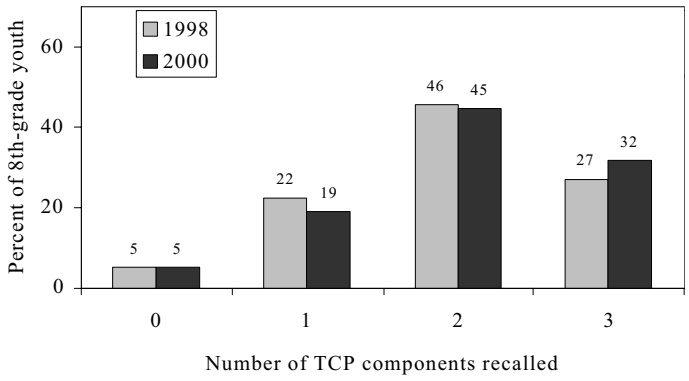
Figure 6-3
Adults' Exposure to the Tobacco Control Program Components - 2000



Source: Adult Telephone Survey, 2000

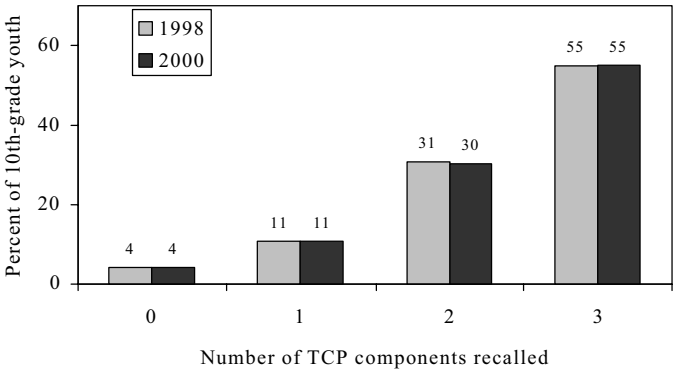
Californians' exposure to Tobacco Control Program components remained stable from 1998 to 2000. Figures 6-4 and 6-5 show the percent of youth who were exposed to 0, 1, 2, or 3 TCP components in the 1998 and 2000 surveys. There was no significant change during the two-year period in 8th- or 10th-graders' recall of TCP components. In other words, youth exposure to the TCP remained consistent from 1998 to 2000.

Figure 6-4
Number of Tobacco Control Program Components Recalled by 8th-Grade Youth: 1998 vs. 2000



Source: School-based Youth Survey, 1998 and 2000

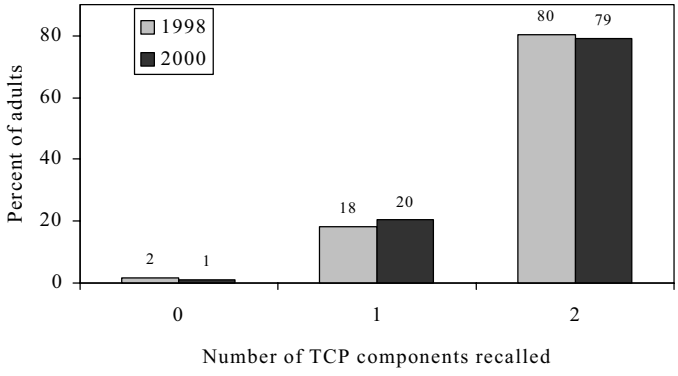
Figure 6-5
Number of Tobacco Control Program Components Recalled by 10th-Grade Youth: 1998 vs. 2000



Source: School-based Youth Survey, 1998 and 2000

Figure 6-6 shows the same comparison for adults. There was no significant change during the two-year period in the percent of adults who recalled exposure to 0, 1, or 2 TCP components.

Figure 6-6
Number of Tobacco Control Program Components
Recalled by adults: 1998 vs. 2000

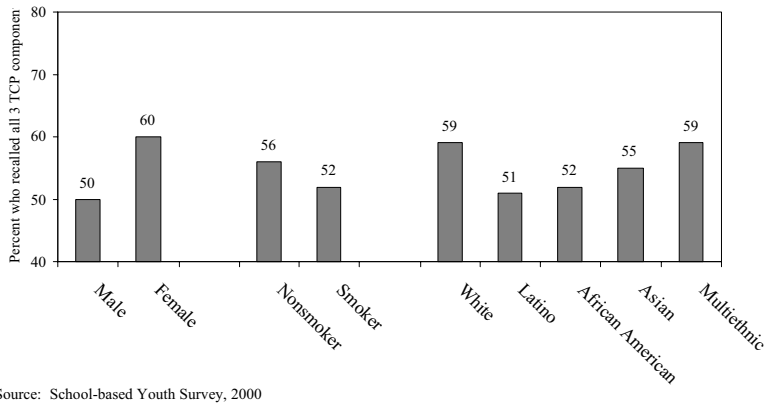


Source: Adult Telephone Survey, 1998 and 2000

Demographic Characteristics of Adults and Youth Who Were Exposed to the TCP Through All Components

Figures 6-7 and 6-8 show the percentage of California 10th-grade youth and adults who were exposed to the TCP through all possible components, by demographic characteristics and smoking status, on the 2000 survey. For youth, there are three possible components: school, media, and community. For adults, there are two possible components: media and community. For each demographic variable, the graphs show the percentage of adults or 10th-grade youth with that characteristic that were exposed to the TCP through all possible components. (Results are shown for 10th-graders only because the patterns of results were very similar among 8th-grade youth.) As shown in Figure 6-7, 10th-grade girls were more likely than boys to be exposed to the TCP through all three components ($p<.05$). Non-smokers were more likely than smokers to be exposed to the TCP through all three components ($p<.05$). White youth were most likely to be exposed to the TCP through all three components, and African Americans and Latinos were least likely ($p<.05$).

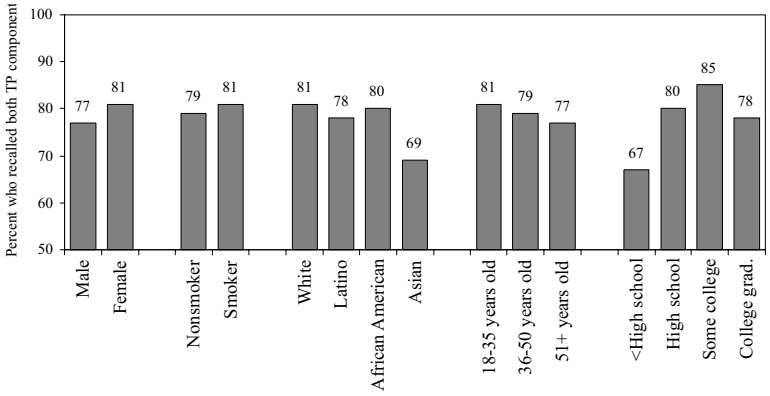
Figure 6-7
10th-Grade Youth Who Recalled Programs from All 3 TCP Components, by Demographic Characteristics, 2000



Source: School-based Youth Survey, 2000

As shown in Figure 6-8, among adults, women were more likely than men to report exposure to the TCP through both media and community programs ($p<.05$). Whites were most likely to report exposure to the TCP through both components, and Asians were least likely ($p<.05$). Adults aged 18-35 years were more likely to report TCP exposure through both components than were adults aged 51 years or older ($p<.05$). Adults with some college were most likely to report TCP exposure through both components, and adults without a high school education were the least likely to do so ($p<.05$). There was no significant difference between smokers and non-smokers in the likelihood of being exposed to the TCP through both components.

Figure 6-8
Adults Exposed to the TCP Through Both Components, by Demographic Characteristics, 2000

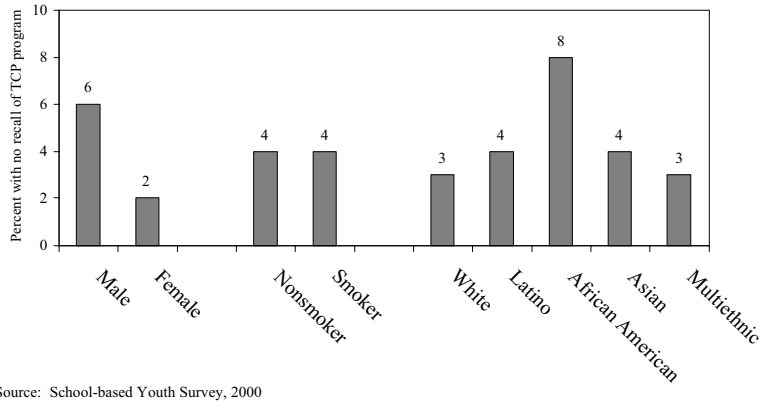


Source: Adult Telephone Survey, 2000

Demographic Characteristics of Adults and Youth Who Did Not Recall Exposure to Any TCP Components

Figures 6-9 and 6-10 show the percentage of California 10th-grade youth and adults who did not recall any exposure to the TCP, by demographic characteristics and smoking status, in the 2000 survey. As shown in Figure 6-9, boys were more likely than girls to report no TCP exposure ($p<.05$). Tenth-grade African Americans were more likely than all other ethnic groups to report no TCP exposure ($p<.05$). Smokers and non-smokers were equally likely to report no TCP exposure.

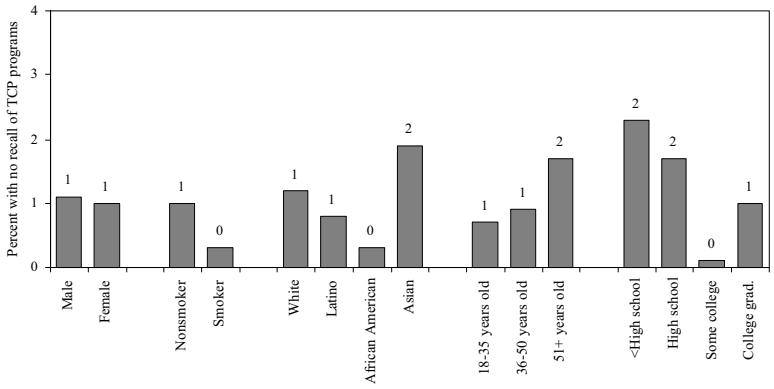
Figure 6-9
10th-Grade Youth
Not Exposed to the TCP, by Demographic Characteristics, 2000



Source: School-based Youth Survey, 2000

As shown in Figure 6-10, among adults, non-smokers were more likely to report no TCP exposure than were smokers ($p<.05$). Asians were most likely to report no TCP exposure ($p<.05$). Adults over 50 years of age were more likely to report no TCP exposure than were younger adults ($p<.05$). Adults with less than a high school education were most likely to report no TCP exposure ($p<.05$).

Figure 6-10
Adults Not Exposed to the TCP, by Demographic Characteristics, 2000

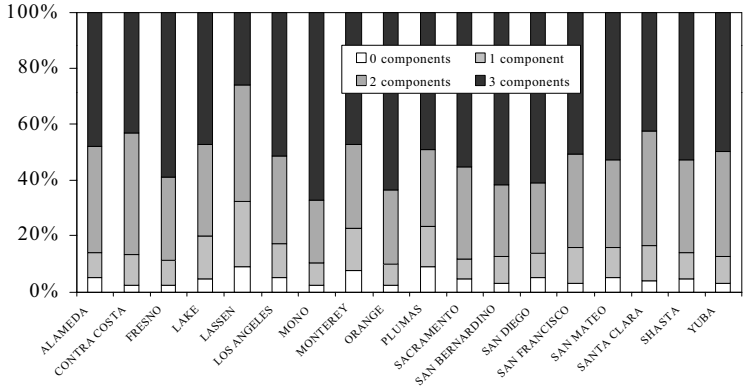


Source: Adult Telephone Survey, 2000

County-Level Variation in TCP Exposure

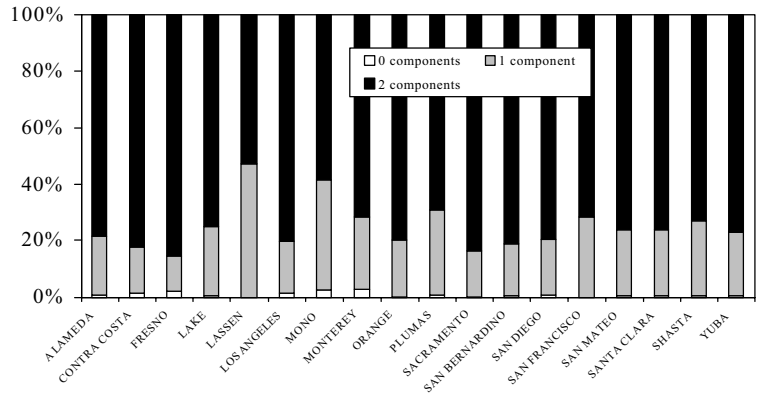
Figures 6-11 and 6-12 show the percentages of 10th-grade youth and adults within each county who were exposed to 0, 1, 2, or 3 TCP components in the 2000 survey.

Figure 6-11
County Variation in TCP Exposure – 10th grade youth, 2000



Source: School-based Youth Survey, 2000

Figure 6-12
County Variation in TCP Exposure – Adults, 2000



Source: Adult Telephone Survey, 2000

Associations Between County-Level Tobacco Control Program Exposure and Tobacco-Related Outcomes

To determine the effect of TCP Exposure on tobacco-related behaviors and social norms, we examined the county-level associations between TCP Exposure and key outcome variables.

The following key outcome variables were evaluated among youth:

- perceived access to cigarettes
- negative attitudes toward the tobacco industry
- perceived importance of tobacco-related issues
- prevalence estimates of peer smoking
- perceived positive consequences of smoking
- perceived negative consequences of smoking
- cigarette refusal self-efficacy
- exposure to ETS
- susceptibility to smoking
- 30-day smoking prevalence
- quit attempts

The following key outcome variables were evaluated among adults:

- support for tobacco control policies
- asking someone not to smoke
- exposure to ETS
- smoking prevalence
- quit attempts

These measures were selected because (1) they were key outcomes in our conceptual model, and (2) they were measured with comparable questionnaire items in both waves, so we could compare changes over time.

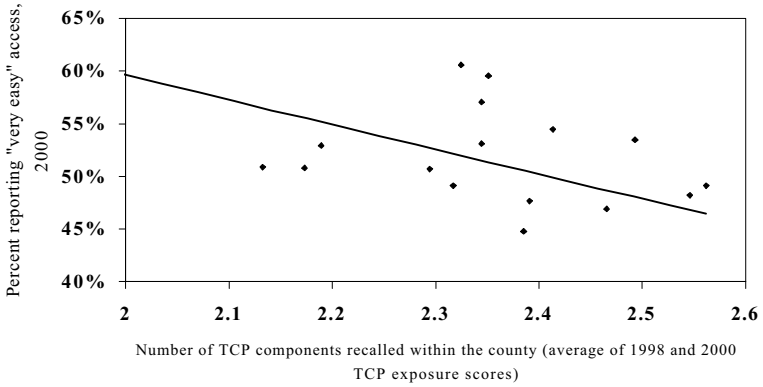
For each county, we calculated the change (difference) between 1996 and 2000 in outcomes. We then used correlation analyses to evaluate the association between TCP Exposure (the average of the 1998 and 2000 scores) and 1996-2000 changes in these key outcome variables[1]. A strong association indicates that counties with higher levels of TCP Exposure showed greater change in outcomes than did counties with lower levels of TCP Exposure. Because the county-level outcomes may be relatively stable in a tobacco control program as mature as that in California, we examined the county-level cross-sectional associations between TCP Exposure and the key outcome variables in 2000, in addition to the change scores.

Youth Outcomes

Perceived access to cigarettes among 10th-grade youth in 2000 was lowest in the counties that had had the highest TCP Exposure from 1998 to 2000. However, higher TCP Exposure was not associated with significant changes in perceived access to cigarettes between 1996 and 2000.

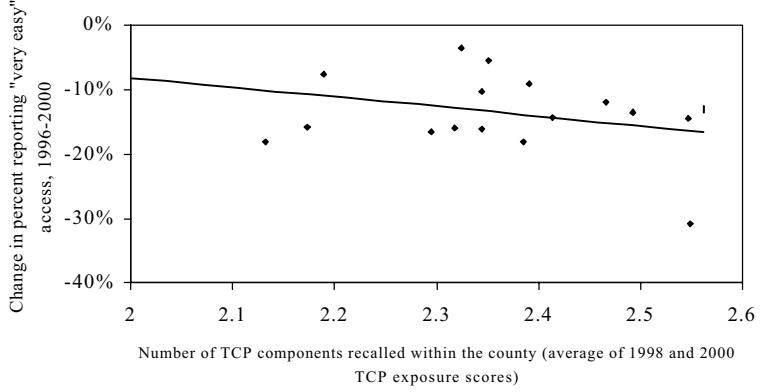
As shown in Figure 6-13, in counties where 10th-grade youth recalled exposure to more TCP components on the 1998 and 2000 surveys, perceived access to cigarettes was lower (correlation=.55, $p<.05$). However, when we examined change in perceived access to cigarettes from 1996 to 2000, this change was not significantly associated with 1998-2000 TCP exposure (Figure 6-14). None of the associations with the other key youth outcomes was significant among youth.

Figure 6-13
County-Level Relationship Between TCP Exposure and 10th-Graders' Perceived Ease of Access to Cigarettes



Source: School-based Youth Survey, 1998 and 2000

Figure 6-14
County-Level Relationship Between TCP Exposure and Change in 10th-Graders' Perceived Ease of Access to Cigarettes, 1996-2000

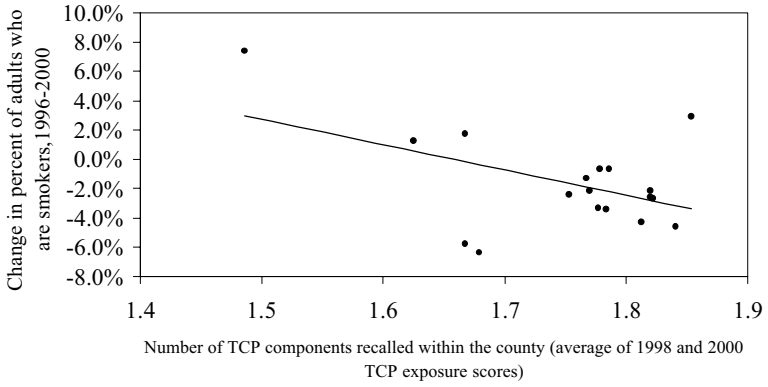


Source: School-based Youth Survey, 2000

Adult Outcomes

In counties with higher TCP exposure, adult smoking prevalence declined more from 1996 to 2000. As shown in Figure 6-15, TCP Exposure on the 1998 and 2000 surveys was significantly associated with declines in adult smoking prevalence from 1996 to 2000 (correlation=-.48, p<.05).

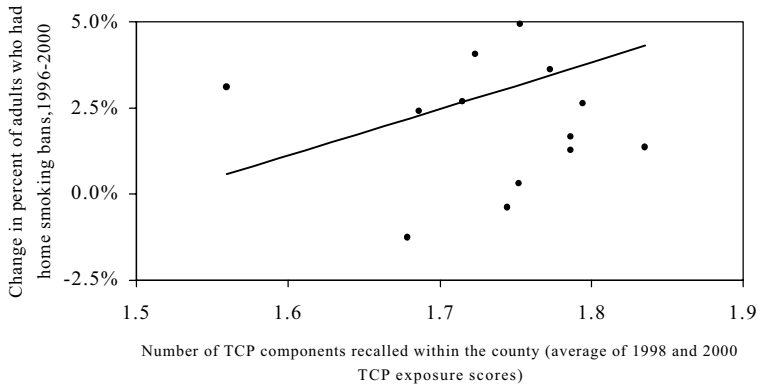
Figure 6-15
County-Level Relationship Between TCP Exposure and Change in Adult Smoking Prevalence, 1996-2000



Source: Adult Telephone Survey, 2000

In counties with higher TCP exposure, the proportion of adults who had home smoking bans increased more from 1996 to 2000. As shown in Figure 6-16, TCP exposure on the 1998 and 2000 surveys was significantly associated with increases in the proportion of adults in the county who reported that they had complete smoking bans in their homes (correlation=.47, p<.05).

Figure 6-16
County-Level Relationship Between TCP Exposure and Change in Adults' Home Smoking Bans, 1996-2000



Source: Adult Telephone Survey, 2000

Summary

Nearly all Californians have been exposed to at least one component of the TCP. The vast majority of 8th-grade youth (95 percent), 10th-grade youth (96 percent), and adults (98 percent) recalled at least one tobacco control activity, media spot, or policy.

Most Californians are receiving tobacco control messages through multiple program components. The TCP appears to be achieving its goal of providing a comprehensive, multifaceted program to California residents. Approximately four out of five Californians reported that they were exposed to tobacco control messages through two or more components in 1998.

Counties with greater TCP Exposure showed better outcomes. In counties with higher levels of TCP Exposure, we observed the following:

- Lower perceived access to cigarettes among 10th-graders in 2000
- Decrease in adult smoking prevalence from 1996 to 2000
- Increase from 1996 to 2000 in the proportion of adults who had complete home smoking bans

Certain demographic groups were especially likely to recall tobacco control messages through multiple components. Among youth, the following groups were most likely to have recalled tobacco control messages from two or more components:

- Females
- Nonsmokers
- White and Multi-ethnic youth

Among adults, the following groups were most likely to have recalled tobacco control messages from both components:

- Females
- Whites and African Americans
- Adults ages 18-35
- Adults with some college education

Certain demographic groups are not being reached effectively by the TCP.

Among youth, the following groups were especially likely not to recall any tobacco control programs and activities:

- Males
- African Americans

Among adults, the following groups were especially likely not to recall any tobacco control programs and activities:

- Asian Americans
- Adults with less than a high school education
- Adults over 50 years of age

Endnotes—Chapter 6

1. To estimate TCP exposure between 1996 and 2000, we averaged exposure scores from the 1998 and 2000 surveys. Our rationale for creating this composite was as follows. First, including exposure scores from two waves increased the reliability of the overall score. Second, we wanted a measure that assessed exposure to as much program activity as possible between 1996 and 2000. Our 1998 measures assessed recall of program activities from 1997 to 1998, and our 2000 measures assessed recall of program activities from 1998 to 1999.

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APPENDIX A

LOCAL TOBACCO CONTROL PROGRAMS: POLICY ANALYSIS

Table A-1. Countering Pro-Tobacco Influence Provisions Passed during Each Independent Evaluation Period*

Community	Ad Location Zoning			Conditional Use Permits			Retailer Restriction			Public Transport			Tombstone Restrictions			Other		
	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000
California total:	0	7	27	0	0	1	0	3	21	0	0	6	0	3	11	0	1	0
Alameda County																		
lame a						✓												
er ele			✓						✓						✓			
a lan		✓												✓				
Contra Costa County																		
ntioch			✓						✓									
Contra Costa Co nt			✓						✓			✓			✓			
Danville			✓						✓			✓						
l Cerrito			✓						✓						✓			
afa ette			✓						✓						✓			
inole			✓												✓			
ittsb r			✓						✓									
leasant Hill			✓						✓									
ichmon			✓						✓									
San amon			✓						✓						✓			
aln t Cree			✓						✓									
Kings County																		
Hanfor		✓						✓										
Los Angeles County																		
Carson		✓																
Compton		✓												✓				
Covina			✓															
Ha thorne			✓															
n le oo		✓						✓										
a ente			✓															
a n ale			✓						✓						✓			
os n eles			✓						✓			✓			✓			
os n eles Co nt		✓																
n oo			✓															
San ernan o			✓						✓									
est Holl oo																	✓†	
Marin County																		
San afael			✓						✓									
San Diego County																		
ceansi e			✓						✓									
San Die o			✓						✓						✓			
San arcos									✓									

Table A-1 (continued).

Community	Ad Location Zoning			Conditional Use Permits			Retailer Restriction			Public Transport			Tombstone Restrictions			Other		
	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000
San Francisco County																		
San rancisco		✓						✓				✓		✓				
Santa Cruz County																		
Santa Cr			✓						✓			✓						
Santa Cr Co nt			✓						✓			✓			✓			
Scotts alle			✓						✓						✓			
Tulare County																		
T lare			✓															
Ventura County																		
oorpar			✓															

*The evaluation periods are:
1996 = July 1, 1995 – December 31, 1996
1998 = January 1, 1997 – June 30, 1998
2000 = July 1, 1998 – December 31, 1999

†Prohibits mobile advertising.

Note: These numbers reflect the provisions within the policies passed for each jurisdiction during the evaluation period and do not reflect provisions passed prior to the evaluation period. Ordinance passage/amendments generally contain more than one provision.

Table A-2. Environmental Tobacco Smoke Provisions Passed during Each Independent Evaluation Period*

Community	Exempt by Number of Employees			Separately Ventilated Room			Multi-unit Dwellings			Outdoor Building Proximity			Public Outdoor Places			Sporting Events			Other		
	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000
California total:	**5**	**5**	**1**	**3**	**1**	**0**	**2**	**2**	**1**	**0**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**3**
Alameda County																					
er ele	✓																				
a lan		✓																			
Butte County																					
Chico							✓														
Contra Costa County																					
ittsb r	✓			✓																	
San amon									✓			✓			✓			✓			
Humboldt County																					
rcata								✓				✓		✓			✓				
Los Angeles County																					
asa ena		✓																			
Marin County																					
ovato		✓			✓																
Napa County																					
apa	✓																				
Orange County																					
Costa esa																					✓†
a na Hills		✓																			
San Francisco County																					
San rancisco																					✓††
San Mateo County																					
e oo Cit																					✓†
San ateo Co nt		✓																			
Santa Barbara County																					
ellton	✓						✓						✓			✓					
Santa arbara Co nt				✓																	
Santa Clara County																					
alo lto	✓			✓																	
Santa Clara Co nt			✓																		
Santa Cruz County																					
Santa Cr								✓			✓										

*The evaluation periods are:
1996 = July 1, 1995 – December 31, 1996
1998 = January 1, 1997 – June 30, 1998
2000 = July 1, 1998 – December 31, 1999
†Designates an agency responsible for enforcement of the specific code related to smoking in enclosed workplaces (Labor Code 6404.5). ††Ordinance requires workplaces to provide ashtrays outside of buildings.
Note: These numbers reflect the provisions within the policies passed for each jurisdiction during the evaluation period and do not reflect provisions passed prior to the evaluation period. Ordinance passage/amendments generally contain more than one provision.

Table A-3. Youth Access Provisions Passed during Each Independent Evaluation Period*

Community	Vending Ban			Sampling Ban			Self-service Display Ban			Single Cigarette Sales Ban			Licensing		
	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000
California total:	**12**	**8**	**5**	**2**	**1**	**3**	**13**	**10**	**23**	**7**	**4**	**2**	**0**	**2**	**16**
Contra Costa County															
ntioch									✓						✓
Contra Costa Co nt									✓						✓
Danville									✓						✓
l Cerrito									✓						✓
afa ette									✓						✓
inole									✓						✓
ittsb r	✓		✓	✓					✓	✓					✓
leasant Hill									✓						✓
ichmon									✓						✓
San amon			✓			✓			✓						✓
aln t Cree									✓						✓
Kings County															
venal		✓						✓							
Corcoran								✓							
Hanfor		✓						✓			✓				
Lassen County															
assen Co nt			✓						✓						
Los Angeles County															
asa ena		✓						✓							
San ernan o									✓						
Marin County															
Corte a era	✓						✓								
ovato		✓						✓							
San afael			✓						✓						✓
Merced County															
os anos		✓						✓							
Orange County															
a na Hills			✓						✓						
San Bernardino County															
e lan s							✓								

Table A-3 (continued).

Community	Vending ban			Sampling ban			Self service display ban			Single cigarette sales ban			Licensing		
	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000
San Diego County															
Ch la ista	✓						✓			✓					
Corona o	✓						✓			✓					
l Ca on								✓			✓				
mperial each	✓						✓			✓					
ceansi e		✓			✓			✓			✓				
San Die o						✓			✓						
San arcos						✓			✓			✓			
ista	✓						✓			✓					
San Francisco County															
San rancisco		✓		✓			✓								
San Luis Obispo County															
San is bispo								✓			✓				
San Mateo County															
elmont	✓						✓								
Colma															✓
ast alo lto															✓
illbrae														✓	
e oo Cit															✓
San Carlos															✓
San ateo	✓						✓								
San ateo Co nt	✓						✓							✓	
Santa Barbara County															
ellton	✓									✓					
Santa arbara	✓						✓			✓					
Santa arbara Co nt							✓								
Santa Clara County															
San ose									✓						
Santa Cruz County															
Santa Cr									✓						
Santa Cr Co nt									✓						
Scotts alle									✓						
Siskiyou County															
ee	✓														
Tulare County															
eter		✓						✓							
T lare									✓						

Table A-3 (continued).

Community	Vending ban			Sampling ban			Self service display ban			Single cigarette sales ban			Licensing		
	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000	1996	1998	2000
Ventura County															
Tho san a s							✓								
Yolo County															
olo Co nt									✓			✓			

*The evaluation periods are:
1996 = July 1, 1995 – December 31, 1996
1998 = January 1, 1997 – June 30, 1998
2000 = July 1, 1998 – December 31, 1999

Note: These numbers reflect the provisions within the policies passed for each jurisdiction during the evaluation period and do not reflect provisions passed prior to the evaluation period. Ordinance passage/amendments generally contain more than one provision.

APPENDIX B

INDEPENDENT EVALUATION METHODS

INDEPENDENT EVALUATION METHODS

Design

The Independent Evaluation of California's Tobacco Control Program (TCP) was designed to determine the effectiveness of tobacco control activities conducted through community programs, schools, and the statewide media campaign. The evaluation utilizes an observational design that includes repeated cross-sectional waves of data collection (n=3). The first, second, and third waves were conducted from October 1996 to February 1997, March to July, 1998, and October 1999 to March 2000, respectively. This report focuses on results from the third wave and changes in outcomes between the first and third waves. Both individual level and county level data are included in the evaluation. Examination of county level data allowed us to take advantage of the longitudinal features of our design, as the same counties were sampled at each wave of data collection.

Sampling Scheme

A two-tiered sampling strategy was utilized. This strategy allowed an intensive evaluation in selected geographic areas while also providing data on tobacco control programs and activities statewide. The first, more intensive tier includes 18 counties as the Primary Sampling Units (PSUs). In these counties, which we refer to as the "*focal counties,"* we have collected and analyzed three waves of data obtained via a community survey of adults, a school-based youth survey, a community survey of opinion leaders, a community survey of law enforcement agency personnel, an assessment of media activities, and monitoring of policy development and enforcement activities. In this report, county-level analyses are restricted to data from agencies in the focal counties.

The second tier includes the remaining 40 California counties and 3 cities that serve as Local Lead Agencies (LLAs), which were not selected as focal counties. We conducted surveys of project directors in the following types of agencies located within these 43 jurisdictions: LLAs, Regional Community Linkage Projects, Ethnic Networks, and Grantees.

To determine which of California's counties fell into each tier, a cluster solution approach was used. The approach selected representative areas from among California's 58 counties. We eliminated the three California municipalities from among the 61 possible Local Lead Agencies that could have been selected. We also wanted to be certain to include the five largest media markets according to the population served in our evaluation. Therefore, the five largest media markets, Fresno, Los Angeles, Sacramento, San Diego, and San Francisco, were preselected. The remaining sampling frame to which cluster analysis was applied was 53 counties. The analysis was designed to form three clusters (strata) based on county population density (population per square mile) and percent rural area. Four to five counties within each of these strata were randomly selected, for a total of 13 counties. These 13 counties plus the five media market counties yielded the sample of 18 focal counties, which includes:

18 Focal Counties

Media Markets	**Medium-Density**
Fresno	Monterey
Los Angeles	San Bernardino
Sacramento	Shasta
San Diego	Yuba
San Francisco	
High-Density	**Low-Density**
Alameda	Lake
Contra Costa	Lassen
Orange	Mono
San Mateo	Plumas
Santa Clara	

Methods

Multiple data-collection methods were used to examine program activities in counties across the state, and individual- and community-level outcome indicators in the 18 focal counties. A brief description of each method is presented below. Details about sample sizes and response rates are provided for Wave 3.

Information on *implementation* of tobacco control programs and activities was gathered from the following sources:

1. Project Director Surveys were developed and mailed to project directors of 139 TCS-funded projects (including all Local Lead agencies, Regions, Ethnic Networks, and Grantees). The project director survey, previously developed as a supplement to progress report information (coded in 1996 only), was revised in 1998 and 2000 to obtain more comprehensive program information. The survey included items on agency collaboration, specific program activity efforts, program focus and audience, media usage, barriers, policy, and enforcement activities. The survey response rate in 2000 was 90% (n=125). A test-retest of 40 project directors was conducted and demonstrated a high degree of reliability. For this report, descriptive analyses include all 125 respondents, but program effectiveness analyses are restricted to the 73 respondents who conducted tobacco control activities in one or more of the 18 evaluation counties.

2. Teacher Surveys were administered to 5th-, 8th-, and 10th-grade teachers in whose classrooms we assessed students. In addition, in middle and high schools, principals were asked to identify teachers who were responsible for providing tobacco education. A survey was mailed to those individuals. The survey assessed levels of tobacco program implementation, student responses to prevention programs, enforcement of school tobacco-free policies, parental involvement in prevention, and barriers to program implementation.

A response rate of 90% (n=408) was achieved on site, and 54% (n=66) was achieved by mail.

3. School Administrator Surveys were mailed to administrators of each school (n=216) that participated in the youth survey. The survey assessed levels of program implementation in the school, enforcement of school tobacco-free policies, and principal attitudes toward the tobacco education program. A response rate of 80% (n=173) was achieved.

4. School District TUPE Coordinator Surveys were mailed to the TUPE Coordinator in each of the school districts in which we conducted youth surveys (n=77). The survey assessed what types of prevention and cessation activities were implemented, how programmatic decisions were made and communicated, types and amount of staff development activities, and coordination with community programs. A response rate of 86% (n=66) was achieved.

5. Media Dissemination Schedules and Financial Statements were obtained from the lead and two ethnic contractors for the statewide media campaign. This information was used to assess how much effort and money the media campaign spent in each TCS priority area for the general audience.

6. Content Analysis of Statewide Media Campaign was conducted to assess what types of media messages were disseminated via television, radio, outdoor, and print advertisements between January 1, 1997 and June 30, 1998. The analysis examined message priority area focus and objective. One coder with a Masters degree in communication reviewed all 40 media spots.

7. Funding and Budget Information for CDHS- and CDE-funded community, media, and school programs was obtained for the fiscal years from 1989-1990 to 1999-2000.

Data on *program outcomes* were obtained using the following methods:

1. Adult Computer-Assisted Telephone Interviews (CATIs) were conducted with approximately 385 adults in randomly selected households in each of the 18 focal counties. The interviews assessed opinions, attitudes and actions taken regarding tobacco and tobacco control activities. Interviewers successfully contacted 19,002 randomly selected telephone numbers of 25,170 working number attempts (76% contact rate). Of the successful contacts, 6,952 (37%) refused to complete the screening questions and 2,101 (11%) did not complete the screening for other reasons. The remaining 9,949 cooperated with the interviewers (53% cooperation rate); 7,241 were successfully screened and eligible to complete the interview; and 6,916 actually completed the interview (96% completion rate).

2. School-Based Youth Surveys of 26,479 students (n=3,060 in grade 5; n=6,238 in grade 8; n=8,604 in grade 10 and n=8,577 in grade 12) from 216 schools across the 18 focal counties were conducted during the 1999-00 school year. At the beginning of the Independent Evaluation (in 1996), school districts were randomly selected in each focal county and schools were randomly selected within each district, in order to assess students in grades 5 and 8. In total, 96% of elementary schools and 94% of middle schools included in Wave 3 had participated in the evaluation study since Wave 1. At the high school level, two groups

of schools, TUPE grantees and non-grantees, were randomly selected in each county. At each wave, high schools were added to the sample to account for changes in grantee status at some schools. A total of 60 high schools (70% of high schools in the Wave 3 sample) participated in the study in all three waves. In all schools, classrooms of students were randomly selected to participate in the evaluation. The student survey assessed students' tobacco-related beliefs, attitudes, knowledge and behaviors, and exposure to tobacco control programs in schools, communities, and the mass media. In Wave 3, implied parental consent to participate was obtained for 94%, 97%, 99%, and 99% of the 5th-, 8th-, 10th-, and 12th-grade students, respectively. Student consent (i.e., consent among students whose parents provided consent) was obtained for 99% of students at each grade level.

3. Opinion Leader Computer-Assisted Telephone Interviews (CATIs) were conducted with individuals in 17 positions of leadership within the following five categories: government officials, law enforcement officials, education officials, media representatives, and business representatives. A comprehensive list of 1,116 individuals filling these positions in the 18 focal counties was compiled. A county quota was determined for each position based on the nature of the position and the size of the county. Respondents were randomly selected from within each position to fill the county quota. A total of 501interviews were completed. Ninety-one percent of the desired quota was fulfilled. Although there was slight overlap between the 1996, 1998, and 2000 samples, they are treated as independent samples in data analyses.

4. Enforcement Agency Surveys focused on both the enforcement of PC308 (prohibiting the sales of tobacco products to minors and possession of tobacco products by minors) and AB 13 (banning smoking in public places). The PC308 survey was sent to all police and sheriff's departments in the 18 evaluation counties (n=234). PC308 surveys were received from 187 enforcement agencies, for a response rate of 80%. The AB 13 survey was sent to all agencies identified as being involved in the enforcement of AB 13 policies; this included police departments, sheriff's departments, health departments, and city offices (n=258). AB 13 surveys were received from 186 agencies, for a response rate of 72%.

5. Tobacco Industry Monitoring Data were collected by observation of tobacco marketing through local newspapers, events, magazines, transit displays, bars and clubs, retail outlets, direct mail materials, and brand merchandise catalogs. Coding schemes were developed to assess the amount and content of pro-tobacco industry activities in California and elsewhere in the nation.

6. Local Policy Data on tobacco control policies for all 471 city and 58 county jurisdictions were obtained from the American Nonsmokers Rights Foundation. The data were reviewed and coded to determine the amount and type of local policy enactment during the Independent Evaluation, spanning the dates July 1995 through December 1999. The database includes data on when an ordinance was first passed and when the last amendment was made, but does not specify activity between these dates. When necessary, Stanford University contacted local officials to clarify policy activities or obtain additional information. Hard and internet copies of original ordinances and municipal codes were examined to verify the date of policy passage

and the exact content of the ordinance. Included in this report is information about the specific types of ordinance provisions passed in all three waves of the Independent Evaluation.

7. STAKE Act 1-800 Phone Call Data from July 1998 through December 1999 were obtained from the STAKE Program, Food and Drug Branch of the Department of Health Services via TCS.

8. California Adult Tobacco Survey (CATS) and California Youth Tobacco Survey (CYTS) data for 1993 through 1999 were obtained electronically from CDHS/TCS.

Data Analytic Approach

In this Final Report, five general types of analyses are presented:

- Descriptive analyses of local Tobacco Control Program (TCP) implementation, i.e., the type, amount, and reach of programs and activities;
- Descriptive analyses of TCP outcomes, including changes in outcomes from 1996 to 2000 and 1998 to 2000, outcome variables that were new in 2000, and subgroup differences in outcomes;
- Descriptive analyses of the Tobacco Industry Monitoring Evaluation data;
- Effectiveness analyses of independent relationships between each of the primary TCP components - community programs, statewide media, and school-based programs - and TCP outcomes
- Effectiveness analyses of the combined effects of exposure to the three TCP components on changes (Wave 1 to Wave 3) in TCP intermediate and ultimate outcomes

Program "dosage" was assessed by collecting data from both program implementors or "senders" (e.g., LLA project directors, school teachers, etc.), and individuals who were exposed to tobacco control activities in communities (i.e., "receivers" such as youth, adults, and opinion leaders). The data from senders provided information about levels of *program implementation or effort*. For example, we asked teachers how much time they had devoted to tobacco prevention instruction during the previous year, and we asked local program directors how much effort they devoted to specific activities related to each CDHS/TCS priority area.

To measure *program exposure* among the receivers, we included survey questions such as, "Have you heard of efforts in your county to enforce AB 13, the law that bans smoking in restaurants and workplaces?" and "During the past year, did you have any school lessons about tobacco use?" In the data analyses, we used both data from senders (i.e., levels of program effort) and data from receivers (i.e., levels of program exposure) to determine program effectiveness, or the extent to which the TCP was associated with program outcomes.

The appropriate analytic approach was chosen for each TCP component. These approaches varied in regard to the unit of analysis used, the statistical analysis software employed, and whether program effort or program exposure was used as the independent variable in effectiveness analyses. The overall approach used for each component, and for program effectiveness overall, are described below.

Local Community Programs: Policy Analyses

Descriptive Analyses. For this report, we completed a total tabulation of all tobacco control policies passed within the 471 city and 58 county jurisdictions during the entire evaluation period (July 1995 and December 1999). This effort included obtaining policy passage data collected by Americans for Non-smokers Rights (ANR) as well as contacting jurisdictions directly to obtain copies of legislative ordinances. This process provided a comprehensive description of where, when, and types of tobacco policies passed in California during the Independent Evaluation.

Effectiveness Analyses. We conducted a quantitative analysis of the association between local TCP efforts to initiate tobacco policies and the passage of tobacco policies. In this analysis we examined archival data to code counties as either having passed tobacco control policies or as not having passed policies. We examined LLA project director survey data to code counties as either having made any effort to initiate policy passage (active) or as not having made any policy related effort (not active). On the project director survey, LLAs reported whether policies of various types had been initiated, amended or passed in any jurisdiction in their county during the past year. For this analysis, only reports of policy "initiation" designated the county as active. Counties were coded as active if, at any evaluation period, LLAs reported policy initiation activity. We hypothesized that counties successful at passing a policy were more likely to be those in which the local TCPs had worked to initiate tobacco control policies. Odds ratios with confidence intervals were calculated from the resulting 2x2 contingency table to compare the odds of policy passage in counties where project directors reported being active at initiating policies compared to the odds of policy passage in counties where project directors reported not being active at initiating policies.

Local Community Programs: ETS and YA Enforcement Analyses

Descriptive Analyses. From the ETS and YA enforcement surveys, relevant estimates of means and proportions were reported using the complete cross-section of data for each assessment (1996, 1998, 2000). To test for changes over time, only agencies with complete cases at both time points (1996 to 2000, and 1998 to 2000) were included in statistical tests.

Effectiveness Analyses. Analyses to examine relationships between TCP input and enforcement agency variables were conducted at the county level. Difference scores in enforcement agency variables between 1998 and 2000 were computed and aggregated to create a county level estimate. County level enforcement agency change scores were then correlated with TCP county level inputs. For example, local TCP efforts to promote smoke-free bars in 2000 were correlated with the change in the number of citations ETS enforcement agencies issued to bars between 1998 and 2000. These effectiveness analyses were conducted for both ETS and YA enforcement.

Local Community Programs: Adult and Youth Analyses

Descriptive Analyses. Descriptive statistics, such as proportions and mean estimates, and hypothesis testing of group differences, were calculated with the individual as the unit of analysis. The adult and youth data were collected using population-sampling methodology, thus *groups* rather than individuals were sampled. As a result, standard statistical analyses that

assume a simple random sample of independent individuals or agencies were inappropriate. To calculate correct error estimates for hypothesis testing, we employed SUDAAN 7.5.2 to take into account the complex sampling design (Shah, Barnwell, & Beiler, 1997).

All individual-level analyses of adult data were weighted. Sample weights were applied to the data based on 1999 population estimates obtained from Claritas' online database (http://www.claritas.com/). Sample weights were adjusted for an individual's probability of inclusion in the sample as well as to reflect California's population proportions based on the following variables: Hispanic origin, race, age, and gender.

Effectiveness Analyses. To examine relationships between local tobacco control programs and relevant outcomes, individual level data were weighted and aggregated to the county level, and means of the 18 evaluation counties were created and treated as the unit of analysis. The county-level analysis allowed us to examine change at the county level from 1998 to 2000. We assessed program effectiveness by examining the correlation between a measure of local TCP input measured at 2000 (e.g., local agency efforts to encourage smoke-free homes) and a change in outcome between 1998 and 2000 (e.g., change in percentage of adults reporting exposure to ETS in their homes). When an outcome of interest was not measured at the 1998 evaluation, the correlation between the local TCP input and outcome measured at 2000 was calculated. Local TCP input measures were calculated using survey data on activity efforts of local TCP agency project directors and financial data about the total amount of local TCP funding awarded to agencies working within a county.

For all effectiveness analyses, an emphasis was placed on the practical significance of effects rather than solely on statistical significance. With a sample size of 18, a correlation of .47 is statistically significant for a two-tailed test with a .05 Type I error rate. A correlation of this magnitude is considered between a medium and a large effect size in social science research (Cohen, 1988). For the effectiveness analyses, we view correlations with an absolute value of .20 or greater (explaining greater than 4% of the variance) as having practical significance. However, we have provided p-value information for significance levels of $p < .10$ or less as an additional guide to interpretation of the results.

Opinion Leader Analyses

All analyses on the opinion leader data were conducted using the individual as the unit of analysis. Because the opinion leader sample was a self-weighting listed sample, descriptive statistics and hypothesis testing of group differences were conducted with standard statistical procedures using SPSS version 7.5.

Media Campaign Analyses

Descriptive Analyses. Descriptive statistics such as proportions, and hypothesis testing of group differences, were calculated with the individual as the unit of analysis. Adult data were weighted as described above.

Analyses utilizing youth data were weighted as well. These weights were based on the Fall, 1999 California Department of Education (CDE) enrollment databases. Each student in our

database received a school weight (a number greater than one). To create the final weight, the school weights were aggregated to the CDE enrollment counts. The final weight was then divided by the average weight in the data set to create the relative weight. This was done to make the sum of the weights match the sample size.

Effectiveness Analyses. We assessed media program effectiveness by examining correlations between exposure to the 1999 media campaign and relevant Wave 3 (2000) outcomes. These analyses were conducted separately for adults, and 8th-, 10th- and 12th-graders, using individuals as the units of analysis. Regression models were run using SAS PROC MIXED (Version 8.0), controlling for intraclass correlations by including random effects for county nested within strata for adults, and school nested within county for youth. For all regression models, we have provided p-values for significance levels of $p < .05$ or less.

School-based TUPE Program Analyses

Descriptive Analyses. Descriptive statistics using youth data were calculated with the individual as the unit of analysis. Youth data were weighted as described above. The majority of analyses using teacher and school administrator data were conducted at the school level. That is, school means were created, aggregating the responses of individual teachers at that school. For analyses of changes in program outcomes among students, regression models were conducted using SAS PROC MIXED (Version 8.0). In these models, individual was the unit of analysis, the models tested for the effect of wave (i.e., time), and they controlled for the random effect of school nested within county. {Note that since the intraclass correlations for sampling strata and county nested within strata were zero (ns) for all grade levels, these random effects were not included in the models.}

Effectiveness Analyses. To examine relationships between school programs and relevant student outcomes, school was the unit of analysis. For 5th- and 8th-grade students, we assessed program effectiveness by examining the correlation between exposure to school program components as reported in Waves 1 to 3 (representing exposure from the 1995-96 through 1998-99 school years) and changes in outcomes between 1996 (Wave 1) and 2000 (Wave 3). Regression models were run using SAS PROC MIXED, testing for the effect of exposure and including the random effect of school nested within county.

For high school students, we assessed program effectiveness by comparing outcomes in TUPE grantee vs. non-grantee schools. All analyses were done at the school level (i.e., using school means as dependent variables). First, cross-sectional analyses tested the effect of grant status among high schools included in the Wave 3 sample (n=86 schools). In addition to the effect of grant status, SAS PROC MIXED regression models included the random effect of school nested within county. Second, longitudinal analyses examined the effect of grantee status among the subset of high schools that participated in Waves 1 and 3 (n=60). Regression models regressed difference scores for outcomes (Wave 3 minus Wave 1) on grantee status.

For all regression models, we provide p-values for significance levels of $p<.10$ or less.

Overall Program Impact Analyses

Descriptive Analyses. Descriptive statistics of multi-component program exposure, including subgroup differences in exposure, were conducted at the level of individual youths or adults.

Effectiveness Analyses. Youth and adult data were aggregated to the level of county (i.e., county means were created) for analyses of overall program effectiveness. In these analyses, the program exposure measure represented the average number of TCP components (school, media, and/or community) recalled by youth or adults in the county. For cross-sectional analyses, the exposure score was derived from the Wave 3 (2000) survey. For longitudinal analyses, the program exposure score was created by averaging exposure reported in Waves 2 and 3.

Regression models were conducted in SAS PROC REG (Version 8.0). For the cross-sectional analyses, Wave 3 outcomes were regressed on Wave 3 program exposure scores. For the longitudinal analyses, the difference score (Wave 3 outcome - Wave 1 outcome) was the dependent variable and the mean program exposure score (Waves 2 and 3) was the independent variable.

Because of the small sample size (n=18 counties), effect size is used as the criterion for reporting results, rather than statistical significance. We report effect sizes of greater than or equal to .20 (small to moderate effect sizes) (Cohen, 1988). We also report the p-value for all results significant at the level of $p<.10$.

Limitations of Program Effectiveness Analyses

This Independent Evaluation employs an observational design in which we are observing TCP activities and outcomes at different points in time over a five-year period. We do not have a comparison or control group, which would considerably strengthen our capability to attribute outcomes to program efforts. Furthermore, our baseline (Wave 1) data were collected after the TCP had been in effect for seven years. To determine program effectiveness, we have examined associations between program efforts or program exposure that occurred between Wave 1 (1996) and Wave 3 (2000) or Wave 2 (1998) and Wave 3, and changes in outcomes from Wave 1 to Wave 3 or Wave 2 to Wave 3. We have employed statistical techniques (e.g., repeated measures multiple regression) that are appropriate for testing whether the TCP *may have caused* the changes that we observed. However, with the absence of a comparison group, we are limited in the extent to which we can state that the program caused the outcomes.

It should also be noted that this evaluation was not designed to make definitive conclusions about the effectiveness of individual activities, strategies, or programs (e.g., specific media spots, curricula, or interventions) that comprise the comprehensive TCP effort. An experimental trial is the preferred methodology for answering questions about the effectiveness of a specific program strategy. In our case, most of the individual program strategies have been employed in conjunction with numerous other strategies. Thus, we cannot isolate counties that implemented one specific strategy only, or groups of individuals who were exposed to one programmatic activity only. However, we are able to describe the effectiveness of groups of program activities and strategies that were implemented within the primary TCP components, community programs, school-based programs, and the mass media campaign.

Endnotes – Appendix B

1. The overall CASRO (Contact x Cooperation x Completion) response rates for the adult telephone survey was 35%.
2. The overall CASRO response rate for the Opinion Leader survey was 69%.
3. The response rate for our initial list of enforcement agencies was higher (84%). In order to get a more comprehensive picture, we expanded our denominator to include agencies that were mentioned by other agencies via survey or phone calls as participating in AB 13 enforcement.